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A GUIDE TO THE SOCIAL SCIENCE EVIDENCE ON THE EFFECTS OF PORNOGRAPHY

Part I - Barry Leighton
Department of Justice Canada
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Part II - Augustine Brannigan
University of Calgary
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The views expressed herein are solely those of the author
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TABLE OF CONTENTS

TABLES v

APPENDICES vii

PART I 1

1.0 Introduction 1

- 1.1 Definition of Pornography 3
- 1.2 Causal Models for the Effects of Pornography 6
- 1.3 Theories of How the Effects Are Generated 8
- 1.4 Research Methods for Studying the Effects of Pornography 11
- 1.5 Criteria for Evaluating Research Evidence 14

2.0 Effects of Nonviolent Pornography 15

- 2.1 Laboratory Research on Behaviour 15
- 2.2 Nonlaboratory Research on Behaviour 21
- 2.3 Laboratory Research on Attitudes 25
- 2.4 Nonlaboratory Research on Attitudes 29

3.0 Effects of Violent Pornography 31

- 3.1 Laboratory Research on Behaviour 31
- 3.2 Nonlaboratory Research on Behaviour 34
- 3.3 Laboratory Research on Attitudes 35
- 3.4 Nonlaboratory Research on Attitudes 38

4.0 Effects of Sexual Versus Violent Components of Pornography 41

- 4.1 Laboratory Research on Behaviour 41
- 4.2 Nonlaboratory Research on Behaviour 43
- 4.3 Laboratory Research on Attitudes 43
- 4.4 Nonlaboratory Research on Attitudes 45

BIBLIOGRAPHY 46

PART II 79

1.0 The Social Science Studies of Pornography: An Update 79

- 1.1 Introduction 79
- 1.2 Conceptual Background: Three Key Dimensions 80
- 1.3 Summary of Leighton's Review 81
- 1.4 Up-date of the Research Since the Leighton Report 83
- 1.5 Diverging Approaches to the Study of Pornography 88
- 1.6 Recent Developments 89

TABLES

Table 1 Typology of Pornographic Material Content 6

Table 2 Types of Evidence 81

APPENDICES

PART I

Appendix A Research Supporting a Negative Effect 63

Appendix B Research Supporting a Positive Effect 73

PART II

Appendix A Reports 1986-1990: Overview Social Scientific Reports on Pornography 91

Appendix B References to Recent Empirical Pornography Research in Social Science Cited in This Review (Exclusive of Citations in Leighton, 1988) 93

PART I

1.0 INTRODUCTION

The objectives of this report are to provide a brief guide to, and partial synthesis of, selected empirical social science research evidence that addresses the link between pornography and its presumed harmful effects.

The review of research evidence is restricted largely to published North American empirical social science studies conducted between 1970 and the Fall of 1987, when this review was conducted. Selected for comment are those that are cited most frequently in the literature as landmark studies and that are representative of the general body of research of the same kind. Consequently, the review is comprehensive but not exhaustive.

The focus is mainly on the impact of pornography on adult males, particularly with respect to sexual aggression towards adult females. Only a few studies were found on the effects of child pornography on adults and none were found on the effects of pornography on children. The main gaps in this review occur in relation to studies of (1) institutionalized violent sexual offenders and (2) mass media portrayals of pornography and violence.

Research evidence is reported in a descriptive fashion and is not further analyzed, thus, excluding social, legal, moral and political issues relating to pornography. It should also be noted that all relevant research that was examined is included, regardless of whether or not the findings support a link between pornography and harmful effects. Accordingly, the studies reported are located within the historical development of their disciplines; any later research that produced contrary findings will inform the earlier work. This balanced approach is taken because to have focused attention only on either the positive or the negative findings would needlessly expose the user of this report to unanticipated contrary findings and arguments.

The report is designed for those having neither a background in social science research nor a knowledge of the scientific debate surrounding the pornography issue. Accordingly, the introduction includes a classification of pornography used by many social scientists, a note on the variety of ways to link pornography logically with its effects, a catalogue of current theories of how a presumed link is developed, a brief review of the merits and problems associated with each research method of examining the pornography-harm link, and a short list of common social science criteria for establishing minimal rigour in research.

The major part of the report is organized into three sections, focusing in turn on the **effects of nonviolent pornography, violent pornography, and sexual versus violent material.** Each section reviews laboratory research on behaviour, nonlaboratory research on behaviour, laboratory studies on attitudes and nonlaboratory research on attitudes. Where the studies make the distinction, they are further subdivided into short-term and longer-term research.

The appendices summarize the research that generally supports negative effects of pornography on behaviour and attitudes and those that support positive or inconclusive effects. It should be noted that this review presents only a very brief summary of each study that may not always fairly represent the conclusions or any qualifications on those findings. Readers wishing to draw conclusions from these studies are urged to go to the original sources to confirm interpretations presented here. As well, given shifting public tastes and tolerances within North American society, these research results may be valid only for the time frame during which they were reported.

This body of research represents a curious and often bizarre patchwork of studies that were less motivated by the information needs of policymakers than by the availability of funding and the shifting fashions of academic interests. Finally, it should be noted that the division of social science research results (presented in the Appendix), in terms of providing clear support for or against an overall link between pornography and harm, is also somewhat unusual and was undertaken at the request of policymakers. Social scientists are often reluctant to make definitive conclusions that would be of use to policymakers.

Nonetheless, this body of research indicates that the problem is more complex than is often found in public debates and that distinctions should be made between different types of pornography and combinations of types, between different types of consumers, and between different types of behaviour and its victims. Further questions arise, such as whether mild pornography or erotica may even have some positive social uses. More clear, however, is the conclusion that portrayals of violence against women may be far more damaging than explicitly sexual portrayals, thus, raising the question of whether policies directed towards the limitation of pornography can be separated from restrictions against portrayals of violence.

This report was prepared during 1987, with a draft submitted in January, 1988. It was not subsequently revised because the priorities of policymakers changed; however, an update was prepared in February, 1990 for the Department of Justice Canada by Augustine Brannigan. This is found in Part II of the document.

1.1 Definition of Pornography

Although pornography may be defined in a wide variety of ways,[1] the most common definitions distinguish between different types of contents, such as erotica ("soft porn"), sexually explicit material ("hard porn"), and violent sexually explicit material (violent pornography). Some commentators include erotica under the pornography rubric[2] on the grounds that all sexually explicit material necessarily subordinates women.[3] Others find erotica to be nonpornographic and acceptable[4] because they portray pleasure rather than pain, degradation or violence towards a victim.[5] Given the lack of consensus on what constitutes pornography, most government inquiries into pornography have found difficulties in defining their subject matter.[6]

To avoid some of the problems associated with defining pornography as it is found in circulation among producers and consumers, social scientists conducting experiments have developed a useful "working typology" or set of categories that distinguish between the different pornographic "stimuli".[7]

These categories require taking the subject-matter depicted at face value rather than addressing the producers' presumed intended effects on the consumers, the reactions of consumers, or the symbolic content.[8] Accordingly, harm is restricted here to that which is tangible, identifiable, particularized, and specific,[9] such as physical violence.

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[1] See McCormack (1983) and McKay and Dolff (1984:15-21).

[2] e.g., Gould (1977), Falwell (1980).

[3] e.g., see the anti-pornography city ordinances passed in Minneapolis and Indianapolis.

[4] e.g., Longino (1980).

[5] Steinem (1980:37) makes this argument.

[6] See Fraser Commission (1985), United States President's Commission (1970), United Kingdom Home Office Commission on Obscenity and Film Censorship Report (1978); see also Dienstbier (1977).

[7] See Donnerstein, Linz and Penrod (1987:3-5), although the fifth and sixth categories (below) have their rank numbers exchanged in order to fit more easily into the revised typology presented here. See also Check (1985).

In the following typology the distinctions are made on the basis of (a) the degree of sexual explicitness depicted, (b) the presence or absence of physical violence, and (c) the implied positive outcome (i.e., a "benefit")[10] or negative outcome for the female.[11]

Nonviolent Pornographic Materials:

1. Sexually explicit but nonviolent material or "erotica" that includes mild to moderate sexually explicit material that is nonviolent, noncoercive and nondegrading and that may be given an R-rating by film censors in the present decade (c.f. prior to the early 1970s).

2. Degrading sexually explicit but nonviolent material that includes sexually explicit materials that are highly degrading and demeaning to women generally because the females depicted appear either as willing recipients of insatiable male sexual behaviour – excluding rape – or as being promiscuous and having insatiable sexual urges themselves.

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[8] i.e., violence is interpreted as being largely physical, rather than as psychologically dominant or economically exploitative relationships. Psychological violence and degradation are even more complex judgments and, while some commentators and government commissions of inquiry identify the degradation aspect of pornographic materials, social scientists appear to have found difficulty in developing objective measures of this characteristic.

[9] In the United States, this requirement for harm is based on legal cases involving violence in the media and the principle of freedom of speech (see Donnerstein, Linz and Penrod; 1987:6-8).

[10] Where the victim is depicted as deriving pleasure and/or sexual arousal from the act, such as is often portrayed in the "willing rape victim" myth.

[11] A further distinction might also be made with respect to the degree of degradation present, although only the first category is characterised by low degradation. However, because degradation and domination of women is relatively subjective and it is therefore more difficult to obtain uniform interpretations, this distinction is omitted.

Violent Pornographic Materials:

3. Violent, sexually explicit material that, in a sexually explicit context, depicts the use of aggression, coercion or force by a male against a female to achieve sexual gratification, such as rape and other forms of sexual assault, with the victim portrayed as experiencing some positive outcome or "benefit", such as pleasure or sexual arousal.

4. Violent, nonsexually explicit material that depicts male sexual aggression against women where the female is often shown to experience some "benefit" (i.e., she is shown as promiscuous, enjoying the activities, etc.), but without the sexually explicit portrayals of the previous category.[12]

5. Sexually explicit, explicitly violent material that shows the use of highly explicit violence by males against female victims, usually involving graphic and brutal rapes that are also sexually explicit and where there is no possible positive outcome or "benefit" (e.g., pleasure) for the victim.

Minimally Sexual, Violent Materials:

6. Explicitly violent material that portrays the use of highly explicit violence by males against female victims, usually involving graphic violence, such as torture, mutilation and murder, but only in a vaguely sexual context. Without the violence, this category might be regarded as mild to moderate erotica.

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[12] i.e., with a similar level of sexual explicitness as is found in erotica.

For clarity, this typology is presented in the following format:[13]

Table 1 **Typology of Pornographic Material Content**

		PRESENCE OF PHYSICAL VIOLENCE		
		Absent	**Present/Explicit**	
		Women shown as "benefiting"	Women shown as "benefiting"	Women shown as not "benefiting"
DEGREE OF SEXUAL EXPLICITNESS	**Less Explicit**	1. Mild to moderate sexually explicit, nonviolent ("erotica")	4. Violent, nonsexually explicit, "beneficial"	6. Explicitly violent, mild to moderately sexual, "nonbeneficial"
	Highly Explicit	2. Degrading, sexually explicit, nonviolent	3. Violent, sexually explicit, "beneficial"	5. Sexually explicit, explicitly violent, "nonbeneficial"

1.2 Causal Models for the Effects of Pornography

While it may be argued that it is not necessary to focus attention on the harmful or other effects of pornography because they are self-apparent and based on common sense, social scientists require objectively demonstrated links between harm and pornography as the presumed cause of that harm. The following list encompasses the causal models that may be used to describe a social scientific link between pornography and its hypothesized negative, positive, or null effects.

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[13] Leighton (draft paper).

It should be noted that one common error when attempting to identify a cause is to confuse causation with correlation, where the latter refers not to a causal link but to an index of the association between two variables, with the basis of the association residing in their joint regular occurrence that might possibly be accounted for by a third variable. Where joint regular occurrence is identified through a statistical relationship, any conclusion drawn on a cause-and-effect relationship between the variables is imputed by the researcher based on some other grounds, such as support from a preferred theory, hypothesis, or model of human behaviour. In brief, the problem is the age-old one of "which comes first – the chicken or the egg?" In the present context, the question becomes: "is pornography the cause, the effect, or something in between?"

The following causal models are commonly found in the social sciences:

Prime cause: in which pornography or some other factor is the clear, single cause of the identified harmful effects.

One of multiple factors: where pornography may be one of a family of factors having conjoint harmful effects, but where the individual effects cannot yet be isolated.

Secondary cause: where pornography or some other factor is a trigger for individuals already predisposed to aggression based on other causal factors.

Intervening factor: where pornography may shape negative attitudes towards women and positive attitudes towards sexual violence so that, given the opportunity to aggress against women under real circumstances, men holding these attitudes will do so in practice.

Null effect: where pornography is another effect of some other prior factor or factors that cause both pornography and sexual violence.

Spurious relationship: in which any link between pornography and sexual aggression is merely a statistical coincidence.

Unknown relationship: in which any link between pornography and any presumed harmful effect can not be proven or tested through scientific methods.

1.3 Theories of How the Effects Are Generated

There are a variety of theories about the mechanism or process through which pornography is thought to produce an effect on its consumers. Although the link between pornography and its presumed effects may be examined through research, the processes that link them are largely untestable, as are the premises about human nature on which the theories rest. As well, given the complexity of human behaviour, it is unlikely that any single theory may adequately account for most responses to pornographic materials; that is, different theories may be required for different types of pornography, individual characteristics of pornography consumers (e.g., gender, personality, age, etc.). Whatever the theory, each makes one of two general assumptions about the origins of human behaviour, as being influenced mainly by either:

> Human nature, where individuals, males in particular, or specific types of individuals are innately aggressive, based on personal characteristics (personality, genetic composition, etc.); or
>
> Nurture or social learning, where individuals are essentially "empty vessels" at birth and learn to be aggressive and violent, or nonaggressive and nonviolent, through long-term socialization and the role models to which they are exposed.[14]

Based on one of these assumptions, there are a variety of theories that propose either negative or positive effects:[15]

Negative Effect Theories

> Stimulus-response learning model: in which humans become "trained" as aggressive and violent by associating aggression with sex through stimulus-response experiences (e.g., parental abuse experiences) and that is distinguished from the social learning theory largely by the different time frames (i.e., social learning may merely be the cumulative impact of extensive stimulus-response episodes).[16]
>
> Catalyst model: where pornography or some other factor is a trigger for individuals already predisposed to aggression based on other causal factors. The

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[14] e.g., Bandura's (1977) social learning theory.

[15] Leighton (draft paper).

[16] e.g., the "stimulus-response" aggression studies of Berkowitz (cited in McCormack, p. 184-5) demonstrate the opposite of the "catharsis" hypothesis.

"general arousal" model of human behaviour[17] postulates that, under conditions where individuals are predisposed towards being aggressive, any other source of emotional arousal, such as pornography,[18] will tend to increase aggressive behaviour.

Two further groups of models have been developed that are applied to pornography research and that make a clear distinction between aggressive arousal and sexual arousal:

> An arousal and attention shift model proposes that additional sources of emotional arousal will transfer as "residual" arousal to the original aggressive arousal impulse, will counteract the influence of inhibitions, and will serve as a catalyst to trigger the aggression when an opportunity to aggress next occurs.[19] Some catalysts may also increase or decrease the original level of predisposed aggression.
>
> An arousal and effect model proposes that the positive or negative effect produced by exposure to pleasing or displeasing pornography will decrease or increase, respectively, the original level of aggression.[20]
>
> An escalating appetite model applies the "domino principle" where, because of the baseness of human nature or the negative impact of acquired aggression, the consumption of erotic pornography leads inevitably to the use of more sexually explicit and/or explicitly violent pornography.[21]

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[17] e.g., Bandura (1973), Zillmann (1971).

[18] However, other sources of arousal include humour, a sports game, physical exercise, noise, etc.

[19] Donnerstein, Donnerstein and Evans (1975).

[20] Sapolsky and Zillmann (1981), Zillmann, Bryant, Comisky, and Medoff (1981), and Zillmann and Sapolsky (1977).

[21] A parallel is with the assumption that one experimental episode consuming marijuana will eventually escalate inevitably to heroin addiction. This model is implicit in arguments against pornography and does not yet appear to be part of an academic theory (Court, 1976) . See Zillmann and Bryant (1986) for limited research evidence for this model.

A desensitization model proposes that individuals become "corrupted" by "unlearning" those already learned socially positive behaviours, attitudes and perceptions which would otherwise restrain them from exhibiting aggression.[22]

A reality construction model shows the individual to exercise nonviolent coping strategies.[23]

Positive or Therapeutic Effect Theories

Catharsis model: where effects such as stress, anger, tension and potential physical violence produced by frustration are reduced through a vicarious aggressive experience when the pornography consumer identifies with the depicted aggressor.[24]

Inhibition model: in that the consumption of pornography reduces any tendency to otherwise engage in sexually aggressive behaviour because of a negative reaction that triggers internal control or inhibitory mechanisms.[25]

Coping strategies model: in which a predisposition towards aggression is generated through innate human nature or learned behaviour aggression, but the individual exercises nonviolent coping strategies to negate or divert the aggressive tendencies into neutral or positive outcomes.[26]

Habituation model: in which consumers of pornography become satiated or bored with additional exposure to pornography.[27]

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[22] e.g., Eysenk and Nias (1978), Donnerstein, Linz and Penrod (1987:112-136), Zillmann and Bryant (1984).

[23] e.g., the "cultivation hypothesis" in Gerbner and Gross (1976).

[24] See Baron (1983a). See also the field studies in McCormack (1983:185).

[25] e.g. Baron (1983a).; see field studies in McCormack (1983:185).

[26] See McCormack (1983:185).

[27] e.g., Zillman and Bryant (1984).

1.4 Research Methods for Studying the Effects of Pornography

Two methods of research are described for studying the effects of pornography. Due to the contentious nature of the laboratory experiment, especially with respect to its artificial and unrealistic context, the main focus is on the research method.

Laboratory Experiments

Most studies conducted on pornography have used an experimental research design with research conducted in a laboratory. An experimental design refers to the research method of presenting a "stimulus" (i.e., the factor under study, pornographic material) to an "experimental group" of subjects and measuring their responses. These responses are compared with a first set of responses obtained prior to the presentation of the stimulus. These two sets of "before" and "after" responses are also usually compared with the responses given by a "control group" of subjects. Subjects are randomly assigned to each group in order to avoid bias in their selection. Upon recruitment they are usually led to believe that the experiment is for some other purpose, such as the effects of stress on learning memory, with the pornography research conducted as a convenient afterthought while the subjects are in the laboratory with spare time available.[28] Comparisons between the different sets of responses will reveal whether or not the stimulus has an effect. The advantage of this research design is the ability to compare responses. A laboratory setting enhances the ability to control all the conditions and to isolate the stimulus and response from extraneous or contaminating factors. Subjects are routinely first or second year undergraduate psychology students who often participate in the study as a course requirement.

Applied to the pornography issue, the laboratory experiment often involves the following steps:

1. Subjects are "angered" through the administration of mild electric shocks[29] by a "confederate" or accomplice of the researcher, usually after they have been manipulated to have apparently "earned" the negative "reward", such as having failed in a learning memory task as part of the bogus experiment. With their level of aggression often measured by blood pressure, the angered subjects are then primed or predisposed towards aggression.

2. The experimental group of subjects are shown a pornographic film as part of an "incidental" study on pornography, while the control group are shown a neutral

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[28] i.e., a "single blind" experimental design.

[29] Sometimes the negative stimulus is a blast of noxious noise.

film, such as one on wildlife. Under a "general arousal model" of aggression it is thought that subjects whose dominant response is aggression will increase their aggressive behaviour when they next experience any source of emotional arousal, such as an erotic film.

3. The subjects are then given an opportunity to administer apparently live electric shocks to the confederate for a continuation of the bogus learning memory experiment. Any sexual arousal the subjects experienced from exposure to the pornographic film is expected to transfer to increased aggression.

The most common criticisms directed towards such laboratory experiments include the following:

1. **The artificial nature of the laboratory setting and the experimental tasks does not reflect the situations or behaviour of the subjects in the real world.** The ability to generalize to the real world depends on the plausibility of the "stimulus" (or independent variable), the "response" (or dependent variable) and prior, contextual, extraneous and intervening factors, as well as the response options. For example, aggression is routinely only found in laboratory experiments if the subjects are first "angered" with electric shocks and the only avenue for expressing aggression is towards the experimenter's chosen target. But these are unlikely scenarios in real life. Researchers must find more realistic analogues as stimuli that can reduce inhibitions in the laboratory, and they should provide alternative aggression targets so that the subjects are not forced to choose between aggression and nonaggression (i.e., "zero-sum" options). On the other hand, the laboratory circumstances are specifically designed to isolate the crucial variables and prevent the relationship being examined from contamination by extraneous factors. This requirement therefore demands an unrealistic scenario.

2. **The subjects are a biased group because they are often first or second year university students who are required to participate in the experiment.** These subjects do not represent a general cross-section of the population, particularly because they are young, well-educated and usually economically advantaged. On the other hand, young adult males better represent the population of offenders, particularly those convicted of sexual assault.

3. **The laboratory setting may facilitate aggression because the subjects do not perceive themselves as really inflicting harm and there are no sanctions against doing so.** Subjects are fully aware that they are participating in an experiment under which scientific rather than social rules apply. Accordingly, they are often aware of what is expected by the experimenter (unless convinced otherwise through a bogus scenario), but even if not, they are aware that their behaviour is legitimized in the interests of science as the higher authority. On the other hand,

many rigorously conducted experiments have been found to produce valid findings that are consistent with those obtained outside the laboratory. As well, the "single blind" design, that fools the subjects into thinking the experiment is on some other subject, does have great merit. However, to date, there have been no studies reported in that the expectations of the researcher's assistants who conduct the experiment have been negated through a "double blind" research design.

4. **The short time frame within which the experiment is conducted is unlikely to capture either the effects of longer-term exposure to a stimulus or its longer-term effects.** Because subjects usually view pornographic materials for only a brief period in the laboratory or, at most, during a number of sessions spread over six weeks, the consumption of pornography may not be fully accomplished. As well, the effect may not be an immediate one, and may be delayed, additive, etc. On the other hand, laboratory experiments are designed to prevent contamination of the relationship between specific variables and to conduct experiments over a longer time frame would endanger the purity of that relationship due to a mounting number of extraneous factors.

Sex Offender Studies and Victim Reports

Interviews with and self-reports from victims of sexual violence, such as rape victims, battered wives and children who have been sexually abused, provide a particularly potent alternative view on the issue. Research of this kind routinely involves case files from sources such as social workers, psychiatrists and victim support groups. There are, however, restrictions on their use with respect to generalizing to either other sex offenders or victims. This restriction is due to the bias inherent in the fact that the findings are based only on (a) cases that are known (i.e., reported) to official agencies, professions, or support groups, or (b) self-reported cases. On the other hand, these are likely to be the most severe or problem cases. In this regard, sex offenders under professional or institutional care are likely to possess personal characteristics that are statistically less common when compared with the general population. However, if the issue is defined in terms of what particular sub-groups in the general population are prone to be influenced by pornography of a particular type, rather than the general population being "at risk" of being so influenced, then these studies are an important source of information. As well, the use of victim case studies helps to correct gender bias in research conducted largely on male offenders.

It should be noted that the approach taken by case studies of institutionalized sex offenders appears to be particularly attractive to the legal profession for whom "trouble cases" appearing before appelate courts largely define their subject matter. However, appeal cases seldom reflect the routine cases of the lower courts or, indeed, events occurring outside the courtroom, in society. Accordingly, those relying on social science case studies should keep in mind that, while such cases provide valuable insights into the more extreme cases, they do not reflect the majority of cases and it is not possible to generalize from a few selected cases to the majority of sex offenders, or to all adults consuming pornography.

1.5 Criteria for Evaluating Research Evidence

The following are selected social science criteria that are routinely used for evaluating the evidence produced by research studies.

> Reliability: Can the findings be replicated by identical or similar research studies? That is, do repeated similar findings from further laboratory experiments confirm that the results are unlikely to have been produced by chance or by error?
>
> Internal Validity: Does the method used influence the findings? That is, can the results be interpreted as a real effect that is not influenced by an extraneous variable, the type of measurement or instrument used, the selection of subjects, self-selection of subjects, dropping out of subjects, maturation of subjects, pretesting, etc.? As well, do the findings measure what they are supposed to by agreeing with findings produced using other indicators of the phenomenon? For example, is the perceived inflicting of electric shocks in a laboratory experiment a plausible measure of sexual aggression in the natural setting of society?
>
> External Validity: To what other types of people (e.g., to the general population or only to sex offenders?), settings (e.g., can the findings produced in a laboratory or other artificial settings be applied to a natural setting?), and conditions can the findings be generalized?

Having been equipped with some of the tools of social science research, the reader may now launch into a review of the research studies focusing on the link between pornography and its presumed harmful effects.

2.0 EFFECTS OF NONVIOLENT PORNOGRAPHY

On balance, the research evidence of the effects of nonviolent pornography on consumers is mixed or inconclusive. While there is evidence that, under certain laboratory conditions, nonviolent pornography has some short-term deleterious effects on its consumers, there is also evidence that it can have a cathartic effect under similar laboratory conditions. Accordingly, the "scientific jury is still out" with respect to the laboratory evidence. Any scientific generalizations with respect to the presumed harmful or beneficial effects of nonviolent pornography must therefore await future studies. In particular, the evidence from nonlaboratory research studies is comparatively meagre and those searching for a causal link between pornography and its effects might pursue long-term "panel" studies of cohorts of individuals, or develop better laboratory measures that more realistically reflect the consumption of pornography in society.

2.1 Laboratory Research on Behaviour

In general, the laboratory research examining the effects of nonviolent pornographic materials is inconclusive. Under most laboratory conditions tested so far, there is insufficient evidence to suggest that exposure to nonviolent pornography leads to an increase in "laboratory aggression"[30] by males against females for this type of pornography. Indeed, **there is some laboratory evidence to suggest that erotica may have positive effects by reducing potential laboratory aggression. Only under the most specific experimental conditions (e.g., when the subjects are first "angered") has a significant negative effect of nonviolent pornography been detected.** However, because the research conducted to date has been limited to the most obvious conditions and these laboratory conditions may not yet approximate a natural setting, it could be argued that the issue has yet to be settled through research. Nonetheless, one of the key distinctions that emerges from this body of research is the distinction between sexual arousal and anger arousal. It appears that anger, and therefore an element of aggression, may be aroused by a wide variety of stimuli, but the link between anger and sexual arousal is not yet clear.

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[30] The term "laboratory aggression" is used to indicate that the aggression produced is an experimental artifact generated by the experiment, usually following provocation or "angering" (as described below) and that any similarity or parallel with "naturally" occurring aggression is an assumption of the researcher.

The Typical Laboratory Experiment

The generalization that the evidence is inconclusive is based on a review of selected studies examined below. Most of the laboratory studies[31] have been based on the "general arousal" model of human behaviour described earlier. This model suggests that any source of emotional arousal, including pornography,[32] will serve as a catalyst to trigger the aggression in individuals predisposed towards laboratory aggression, although some catalysts may increase or decrease the level of aggression. Accordingly, the subjects in these experiments were usually first "angered" with electric shocks administered by a confederate in order to "disinhibit" and thus prime or predispose them towards aggressive behaviour in the laboratory. These subjects were then shown a sexually explicit or arousing but nonviolent pornographic film of either a few minutes' duration or a full-length feature film. This film was followed by an opportunity to "aggress" against a confederate by administering apparently live shocks. The results were then compared with those obtained by a control group of subjects who were shown a nonpornographic film, who were treated in a nonangering fashion by a confederate, or who received some other different condition.

Short-Term, Same Sex Studies

The first group of studies in this series focused on short-term, same-sex laboratory aggression (e.g., males against other males) and reveal an important general distinction between aggression and sexual arousal, whereby any source of arousal (sexual or otherwise) can heighten and trigger a predisposition to aggression. Their general conclusions are summarized below, together with some representative studies.

1. **A predisposition towards laboratory aggression (i.e., being angered) is necessary before nonviolent pornography has an effect on laboratory aggression:**

   When male subjects were treated in a neutral manner and shown neutral photographs, mild nonviolent pornographic photographs or explicit nonviolent pornographic photographs, their levels of laboratory aggression remained unchanged, in contrast to those subjects who were first angered and then shown any one of the photographs.[33]

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[31] Conducted by researchers such as Zillmann, Malamuth, Baron and Donnerstein.

[32] As noted earlier, however, other sources of arousal include humour, a sports game, physical exercise, arousing noise, etc., and even a surgical operation.

[33] e.g., Donnerstein, Donnerstein and Evans (1975).

2. **Emotionally arousing material of any kind can trigger and even enhance the emotional predisposition or mood of an individual under laboratory conditions:**

When male subjects were angered and shown highly arousing material in a laboratory, including sexually explicit but nonviolent pornographic films, they were more aggressive towards other males than those who had been shown nonpornographic films.[34] However, when male subjects were positively rewarded and shown a nonviolent pornographic film, they were more pro-social than those who had been shown a nonpornographic film.[35]

3. **Mild to moderate nonviolent pornography can actually inhibit or reduce subsequent laboratory aggression in individuals predisposed to laboratory aggression by distracting their attention, although it seems likely that the more sexually explicit or displeasing the material, the less distracting it will be for individuals predisposed to laboratory aggression, and the more likely that laboratory aggression will increase:**[36]

Whether or not male subjects were first angered or treated in a neutral manner, after they were shown mild nonviolent pornography, they were significantly less aggressive towards other males than the angered subjects who viewed nonpornographic films and displayed almost the same low level of laboratory aggression as the nonangered subjects who viewed nonpornographic films.[37]

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[34] Zillmann (1971). See also Fisher and Harris (1976), Jaffe (1975), Jaffe, Malamuth, Feingold and Feshbach (1974), Meyer (1972a), Rosene (1971), Tannenbaum (1970), Zillmann, Hoyt and Day (1974).

[35] Mueller and Donnerstein (1981).

[36] Research by Baron (1977), Donnerstein, Linz and Penrod (1987:44-46), Zillmann and Johnson (1973) is consistent with Donnerstein's "arousal and attention shift" model (i.e., model 2a, from sub-section 1.3), while studies by Sapolsky (1984), Sapolsky and Zillmann (1981), Zillmann, Bryant, Comisky and Medoff (1981), and Zillmann and Sapolsky (1977) support the alternative but quite similar "arousal and affect" model of Zillmann (i.e., model 2b from sub-section 1.3). The type of medium also appears to be important in determining differential responses to the content, with still photographs being less distracting than feature-length films which are more absorbing: see Zillmann and Johnson (1973), Donnerstein, Donnerstein and Barrett (1976).

[37] Baron (1974b). See also Baron (1974a, 1977, 1983a, 1983b), Baron and Bell (1973, 1977), Donnerstein, Donnerstein and Evans (1975), Frodi (1977), White (1979), Zillmann and Sapolsky (1977).

4. **Females show similar patterns of laboratory aggression to males but respond to milder forms of nonviolent pornography:**[38]

When female subjects were angered and shown photographs of neutral material, males in bathing suits, nude males and explicit nonviolent pornography (sexual acts), they were more aggressive towards other females if they viewed the nonviolent pornography, were less aggressive if they viewed the swimsuit males, and showed no increase in aggression if they viewed the nude male or neutral photographs.[39] The nonangered females showed no increase in aggression in response to any of the photographs.

Longer-Term Exposure Studies

A second focus for study is on longer-term exposure to nonviolent pornographic materials, in order to detect the effects of "prolonged" viewing of pornography under laboratory conditions over a period of four to six weeks rather than the effects being examined immediately following a few minutes' exposure. Only one relevant study has been conducted to date. This research differs slightly from the above studies in that it examined nonangered subjects using other indicators of reactions, such as heart rate, blood pressure and subject ratings.

5. **Prolonged exposure to explicit nonviolent pornography reduces laboratory aggression:**

When nonangered male and female subjects were shown 36 films a week for six weeks, then those subjects who viewed 36 nonviolent pornographic films displayed significantly less physiological and (self-reported) emotional arousal than those who had viewed 36 nonpornographic films and displayed moderately less physiological and emotional arousal than those who viewed 18 nonpornographic and 18 pornographic films.[40]

Short-Term, Opposite-Sex Studies

A third group of studies addressed short-term, opposite-sex aggression, focusing mainly on male aggression towards females when exposed to nonviolent pornography under laboratory conditions. There have been only a few such studies and their findings are somewhat inconsistent.[41]

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[38] e.g., Baron (1979), Cantor, Zillmann and Einsidel (1978), Fisher and Harris (1976), Jaffe, Malamuth, Feingold and Feshbach (1974).

[39] Baron (1979).

[40] Jaffe, Malamuth, Feingold and Feshbach (1974).

6. **Nonviolent pornography increases equally the laboratory aggression of both males and females against opposite-sex targets:**

   When nonangered male and female subjects read sexually explicit but nonviolent pornographic passages, they were all more aggressive towards both opposite-sex targets.[42] There was no evidence that males were more aggressive towards females (or other males) than females were against males (or other females). However, from the previously cited research it appears that most subjects, especially males, generally need to be angered in order that aggression be later increased by nonviolent pornography, especially given the inhibitions males may have with respect to exhibiting aggression against females under laboratory conditions.

7. **Nonviolent pornography decreases the laboratory aggression of males against females:**

   When nonangered males were shown mild, nonviolent pornographic photographs, they were significantly less aggressive towards both males and females than those subjects who were not shown the pornographic photographs and they were less aggressive towards females than towards other males.[43]

8. **Sexually explicit but nonviolent pornography increases laboratory aggression in individuals predisposed to laboratory aggression, but does not differentiate between the laboratory aggression levels exhibited towards male and female targets:**

   When angered males were shown sexually explicit but nonviolent pornographic films, they were more aggressive than those who were shown a neutral film, but were equally as aggressive towards both male and female targets. However, all subjects displayed significant levels of physiological arousal, regardless of the gender of the target.[44]

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[41] One of the earlier studies was conducted by Mosher (1970), who found that males in the laboratory increased their verbal abuse of females following exposure to non-violent pornographic films, but this effect was observed only when the males were informed that only if they increased their verbal abuse would they get to see another pornographic film. In short, they were rewarded for providing the "correct" or expected response.

[42] Jaffe, Malamuth, Feingold and Feshbach (1974).

[43] Baron and Bell (1973).

9. **Sexually explicit but nonviolent pornography has no impact on male laboratory aggression towards females in individuals who have been predisposed to laboratory aggression and shown aggressive models, but it increases the level of laboratory aggression of males towards other males:**

   When male subjects were first shown a male model who aggressed against a male or female confederate with apparently real electric shocks, and were then angered and shown sexually explicit but nonviolent pornographic films, their aggression did not increase towards the female confederate, although it did towards the male confederate.[45] However, this study also found that males viewing a male model displaying aggression towards a female confederate increased the male subjects' level of aggression towards females prior to being angered so that it appears that the pornographic film later reduced their aggression.

10. **Differential attitudes by males towards the role of females in society have no effect on male laboratory aggression towards females:**

    When males exhibiting traditional sex role attitudes[46] were first angered by a male or female confederate, shown sexually explicit but nonviolent pornographic films, there was no increase in aggression when compared with both the other subjects who viewed a nonpornographic film and those who had liberal sex role attitudes.[47] As well, there was no evidence that males were more aggressive towards females after viewing nonviolent pornography.

11. **Nonviolent pornography increases laboratory aggression in males under permissive laboratory conditions:**

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[44] Donnerstein and Barrett (1978). The targets were the same confederates as the anger instigators, and hence were the same gender.

[45] Donnerstein and Hallam (1978).

[46] i.e., attitudes such as "women's place is in the home". See Spence and Helmreich (1978) for a scale of these attitudes.

[47] Donnerstein and Hallam (1978).

When male subjects were shown nonviolent pornographic photographs (slides) while overhearing a female make permissive, positive comments about the subject matter, they exhibited greater increased laboratory aggression than those subjects who overheard nonpermissive, negative comments.[48]

12. **Multiple opportunities for males to exhibit laboratory aggression against females increase the level of male laboratory aggression:**

When males were angered and shown sexually explicit but nonviolent pornographic films, their laboratory aggression did increase more than those who were shown nonpornographic films when given a second opportunity to aggress against a female some 10 minutes after a first opportunity.[49]

Longer-Term, Opposite-Sex Studies

13. **Prolonged exposure to explicit nonviolent pornography has no effect on male aggression towards females under laboratory conditions:**

When males were angered and shown nine hours of sexually explicit but nonviolent pornographic films, photographs, and written passages over three weeks, their aggression did not increase more than that of those who had been shown nonpornographic films, when given an opportunity to aggress against a female.[50]

2.2 Nonlaboratory Research on Behaviour

The evidence on the effects of pornography from nonlaboratory research tends to lend partial support for negative outcomes, although these findings are qualified by the questionable reliability of the cross-national comparisons of crime rates and of the validity of evidence from sex offenders. With respect to comparisons of national crime rates, the countries and cities included in the studies were not randomly selected; therefore, generalizations cannot be made to other areas. As well, there were no measures of pornography production or consumption to detect the effects of changes in law. Finally, the crime statistics were imprecise and often not strictly comparable between countries that define sexual assault differently.

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[48] Leonard and Taylor (1983).

[49] Donnerstein and Hallam (1978).

[50] Malamuth and Ceniti (1986).

With respect to pornography consumption in the United States, the links with harm appear to be with broader cultural factors that generate both pornography consumption and harmful effects. Similarly, studies of sex offenders appear to suggest that the causal link is not with pornography but with socialization factors that generate both pornography consumption and sexual violence.

Effects in Countries with Changes in Pornography Laws

Legislation against pornographic films, photographs and books was repealed in Denmark between 1967 and 1969. It has been argued that **official crime rates for sex offences, particularly against children, have been reduced since the repeal of the Danish anti-pornography laws.**[51] This conclusion has been criticised, however, on the grounds that the decrease is actually due to the decriminalization of a variety of sexual offences that were previously categorized as being far more serious.[52] By contrast, **sexual offences that have not been decriminalized, particularly rape, have increased since the repeal of the anti-pornography laws.** On the other hand, Danish experts claim this increase in the official crime rate is due to a greater willingness of victims to report rape during a decline in pornography consumption.[53] As well, the impact was not examined of the later rise in violent pornography that became increasingly available following decriminalization.

The following propositions have been stated with respect to a link between the repeal of anti-pornography legislation and increases in sexual assault (rape):[54]

1. **Rape reports have increased where pornography laws have been liberalized:**

    A study of official rates for rape in the United States, England and Wales, Copenhagen, Stockholm, Australia and New Zealand between 1964 and 1974 shows significant increases of 139 per cent, 94 per cent, 84 per cent, 41 per cent, 160 per cent and 107 per cent, respectively, and a decrease for Japan of 45 per cent. These changes occurred while pornography of all kinds as well as reports of sexual assaults increased.[55]

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[51] Kutchinsky (1970a, 1970b), Ben-Veniste (1971).

[52] Bachy (1976), Court (1976, 1984), Bart and Jozsa (1980).

[53] Kutchinsky (1985), Court (1984).

[54] These have been selected from a total of eight propositions advanced in Court's (1984) report.

2. **Areas where violent pornography is not liberalized do not show a steep rise in rape reports:**

   Singapore did not liberalize anti-pornography laws between 1964 and 1974 and showed a comparatively lower increase in the official rate for sexual assault (rape), of 69 per cent.[56] However, the even lower increase in the rate for Stockholm over the same period has not been explained.

3. **Where restrictions have been adopted, rape rates have decreased:**

   Anti-pornography laws in Japan became even more restrictive between 1964 and 1974 and showed a significant decrease in the official rate for rape.[57] However, the decline in rape was consistent with a decline in the overall official violent crime rate. On the other hand, Japanese pornography is particularly violent while rape rates are comparatively low.

4. **Intermittent policy changes are reflected in rape report data:**

   Official rape reports increased until 1974 in Hawaii when anti-pornography laws were imposed; they decreased over the next two years and increased after the laws were liberalized again in 1976.[58] A similar pattern was found in Denmark.

Pornography Consumption in the United States

Since the single study[59] that was conducted for the 1970 United States Presidential Commission, there has been only one major inquiry in the United States into the relationship between pornography and official rates of sexual assault.[60] The 1970 study showed an increase in sexual crimes between 1965 and 1969. However, this was a smaller increase than might have been expected given the massive increase in the availability of pornography. Research in the 1980s found the following:

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[55] Court (1984).

[56] Court (1984).

[57] Court (1984).

[58] Court (1984).

[59] Kupperstein and Wilson (1970).

[60] Baron and Straus (1984), (1985), (1986).

1. **Rape rates may or may not be associated with the availability of pornography:**

   A study of official rates of reported rape in 50 states showed that they were statistically unrelated to the number of adult book stores and adult theatres but were statistically related to the circulation of outdoor magazine circulation, such as *Field and Stream* and *American Rifleman*.[61]

   In a second study, official rates of reported rape in 50 states were significantly related to an index of the subscription and the newsstand circulation of eight pornographic magazines, with a positive correlation of 0.63 in 1979, 0.55 in 1980, and 0.64 for the 1980-82 period.[62] However, the researchers commented that this association does not prove a causal relationship and that a third variable, such as inter-state attitudinal differences, might explain different rape levels.[63]

2. **Rape rates vary with the prevalence of attitudes supporting violence:**

   Official rates of reported rape in 40 states were significantly related to attitudes approving violence and statistically unrelated to pornographic magazine circulation.[64] The researchers suggested that attitudes favourable to violence accounted for both rape rates and magazine circulation and that these attitudes are part of "hypermasculinity" (i.e., "macho") personality characteristics. Accordingly, these attitudes and the personality type would have to be explained by factors other than pornography.

Sex Offenders

Research conducted for and subsequent to the 1970 United States President's commission came to the following conclusion:

1. **Known sex offenders have less exposure to nonviolent pornography than comparable groups:**

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[61] Scott (1985).

[62] Baron and Straus (1984), (1985), (1986).

[63] Baron and Straus (1984:206).

[64] Baron and Straus (1986).

Known sex offenders were found to have had less exposure to nonviolent pornography as teenagers and as adults than nonoffenders.[65] Sex offenders were found to have less experience generally with pornography than nonoffenders.[66]

2. **Sex crime activities are unrelated to pornography use by known sex offenders:**

The frequency of sex crimes, the number of victims, the ability to control deviant urges, the age of the offender, and the degree of violence was found to be statistically unrelated to the use of pornography by known sex offenders.[67]

2.3 Laboratory Research on Attitudes

While much of the laboratory research found little effect of nonviolent pornography on immediate opportunities to exhibit laboratory aggression, the research that finds significant deleterious effects on the negative attitudes of men towards women suggests that affected attitudes may still be translated into aggressive behaviour at some later time when opportunities to aggress arise. Whether attitudes are in fact translated into behaviour remains debated by social scientists, but that belief is nonetheless widely held.

Effects of Short-Term Exposure

While the research conducted for the 1970 United States President's Commission found no link between short-term exposure to nonviolent pornography and attitudes about sexual assault,[68] or "sex-calloused" attitudes towards women,[69] **an examination of medium-term effects suggested that attitudes towards liberalizing anti-pornography laws**

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[65] Kant and Goldstein (1978). They also found that a family background with conservative sexual attitudes and repressed discussions on sexual matters is a better statistical predictor of sex crimes and other deviant sexual activities than self-reports of the influence of pornography consumption on activities.

[66] Cook, Fosen and Pacht (1971).

[67] Abel, Mittelman and Becker (1985).

[68] Kutchinsky (1970b).

[69] Mosher (1970).

become more liberal with increased exposure to nonviolent pornography.[70] Research on short-term exposure to nonviolent pornography found some positive effects as well as some negative effects on attitudes with respect to what might be termed the "relative deprivation" of a partner's physical attractiveness.[71]

1. **Nonviolent pornography increases positive attitudes towards intimate partners:**

   When male subjects read sexually explicit but nonviolent pornographic written passages from adult magazines, their attitudes towards their intimate partners became significantly more positive.[72] These findings are consistent with the clinical research on the therapeutic effects of mild nonviolent pornography on sexual dysfunctions and dissatisfactions by intimate sexual partners with their physical relationship.[73]

2. **Idealized models in nonviolent pornography increase negative attitudes towards average models and intimate partners:**

   When male subjects were shown photographs of nude females from *Playboy* and *Penthouse* magazines, they rated the physical attractiveness of a photograph of an "average" female nude significantly lower than those subjects who were first shown a similar "average" nude photograph.[74] A second study found that the subjects rated their intimate partners' physical attractiveness significantly lower after viewing the idealized nude models from these magazines.[75]

Effects of Medium-Term Exposure

Research on "prolonged" exposure to nonviolent pornography examined its effects over a "medium-term" period of up to six weeks instead of during one laboratory session. However this "longer-term" exposure might more correctly be termed "intense" exposure.

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[70] Zillmann and Bryant (1984).

[71] Howard, Reifler and Liptzin (1970).

[72] Dermer and Pyszcynski (1978).

[73] Yaffe and Nelson (1982), Wilson (1978).

[74] Kenrick, Gutierres and Goldberg (1987).

[75] Kenrick, Gutierres and Goldberg (1987). Similar findings were produced from studies conducted by Kenrick and Gutieres (1980), and by Cash, Cash and Butters (1983).

These studies do not detect the effects of either (1) exposure over a number of years or (2) long-term effects over a number of years. Accordingly, until studies examining these two aspects are conducted, the present findings might be regarded as inconclusive.

Nonetheless, the following studies suggest that **sexually explicit, even degrading, nonviolent pornographic scenes have no impact on viewers' attitudes when these scenes are placed in the context of a plot, such as in an uncensored full-length feature film (e.g., "X-rated"), and are not the sole content and concern of the film, such as in a "stag film"**. Hence it is the "concentration" of the sexually explicit content or the "ratio" of sexually explicit messages to nonsexual messages that appears to be the determining factor with respect to an effect on viewers' attitudes, such as the trivialization of rape.

Those studies[76] that used X-rated feature films with plots generally found no changes in attitudes, while those that used "stag films"[77] found contrary results.

3. **Prolonged exposure to focused explicit nonviolent pornographic films increases the tolerance of attitudes towards uncommon sexual acts, severity of sentences for sex offenders, and sexual equality:**

   When nonangered male and female subjects were shown 36 ten-minute films over six weeks, those subjects who viewed 36 nonviolent pornographic films were significantly (1) more tolerant of less common and violent forms of pornography, (2) less supportive of sexual equality and women's liberation movements, and (3) more lenient in assigning punishment to a rapist than those who had viewed 36 nonpornographic films and moderately lenient when compared with those who viewed 18 nonpornographic and 18 pornographic films.[78] As well, males' callousness towards women on sexual matters significantly increased. However, no immediate impact on aggression was found.

4. **Prolonged exposure to full-length, unedited, explicit nonviolent pornographic films has no effect on attitudes towards sexual acts or women:**

   When nonangered male subjects were shown five unedited, sexually explicit, feature-length films over two weeks (nearly eight hours in total), there were no significant increases in their tendency to (1) hold calloused attitudes about rape,

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[76] e.g., Linz (1985), Malamuth and Ceniti (1986), Krafka (1985).

[77] e.g., Check (1985b) and Zillmann and Bryant (1982).

[78] Zillmann and Bryant (1984).

(2) view women as sex objects, (3) blame rape victims, or (4) view rapists as less blameworthy.[79]

A second study found similar results (i.e., no impact on attitudes) with respect to the self-reported likelihood of raping a victim under conditions where the offender would hypothetically not be caught.[80]

A third study used females subjects but produced similar results to these two studies,[81] with no increased tendency for females viewing the full-length, unedited, sexually explicit feature films to (1) engage in sex-role stereotyping, (2) experience lower self-esteem, (3) report less satisfaction with their body image, (4) report more negative beliefs about rape, or (5) show greater acceptance of violence against women, when they were compared with females who had not viewed these films.

5. **Prolonged exposure to nonviolent pornography containing idealized actors and activities increases negative attitudes towards intimate partners and slightly increases positive attitudes towards sexual activities with nonintimate partners:**

When nonangered male and female subjects were shown a one hour nonviolent pornographic film each week over six weeks then their satisfaction declined with respect to their intimate partner's physical attractiveness and sexual performance, compared with those subjects who were shown sexually-neutral comedy films.[82] As well, those who viewed the pornography were slightly more positive towards recreational sex with partners having no emotional commitment ("one-night stands").

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[79] Linz (1985). These findings contrast with those obtained by Check (1985b) who found significant increases in negative attitudes towards women. However, his results have since been criticized and were probably influenced by self-selection of subjects and expectations of results announced to the subjects.

[80] Malamuth and Ceniti (1986).

[81] Krafka (1985).

[82] Zillmann and Bryant (1986).

2.4 Nonlaboratory Research on Attitudes

No studies could be found that used nonlaboratory research methods to examine the effects of nonviolent pornography on consumers' attitudes towards pornography. While there are numerous public opinion polls on pornography, these routinely measure public perceptions of the presumed effect of pornography, rather than the actual effect of pornography on consumer attitudes.

3.0 EFFECTS OF VIOLENT PORNOGRAPHY

In general, the research on the effects of violent pornography indicates that explicit violence has a significant deleterious effect on laboratory aggression as well as on negative attitudes towards sexual violence against females (i.e., rendering such attitudes more tolerant). In particular, the myth of the "willing rape victim" is propagated through violent pornography and this depiction, as well as this attitude by pornography consumers, is shown to be a potent factor in shaping the outcome of laboratory research on aggression and attitudes. However, one insight that has emerged from this body of research is that it may be possible to isolate the effects of the sexually explicit content from the violence content in pornography, a line of inquiry that is pursued in the next section.

3.1 Laboratory Research on Behaviour

In general, the laboratory research examining the effects of sexually explicit violent pornography concludes that there are significant deleterious effects in the laboratory, as indicated by increased aggression by males against females under laboratory conditions, but that it is the violent component of the pornography that generates this laboratory effect. Hence, it is violence that is the main cause of laboratory aggression, with pornography as the vehicle for communicating the violence.

Preliminary research suggests, however, that the laboratory effects of violent pornography depicting aggression against females as (1) having positive benefits for the victim, (2) being justified, and (3) being erotic, are short-lived and not sustained over a period of weeks; although further research is required to settle this issue. It has been hypothesized that violent pornography may first implant and/or strengthen these attitudes in the consumers as well as cause emotional (sexual and/or aggressive) arousal[83]. The hypothesis then suggests that these attitudes might be "re-awakened" or triggered by further exposure to violent pornography or perhaps even to situational cues similar to those depicted in the violent pornography.[84] However, this proposition awaits testing through research and the link between attitudes and subsequent behaviour has not yet been demonstrated.

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[83] This view is consistent with the research findings.

[84] Malamuth and Ceniti (1986).

Short-Term Effects

The majority of these studies focused on male aggression towards females.

1. **Sexually explicit violent pornography increases male laboratory aggression against females under conditions that condone aggression:**

   When male subjects read sexually explicit violent pornography accompanied by photographs and were subsequently angered by a female confederate, they were significantly more aggressive towards the female confederate under conditions that condoned aggression than were male subjects under conditions that inhibited aggression.[85] In this experiment, the subjects "accidentally" overheard a female confederate making favourable comments with respect to the same photographs.

2. **Sexually explicit violent pornography increases male laboratory aggression against females but sexually explicit nonviolent pornography has no effect:**

   When male subjects were angered by a male or female confederate and were shown a sexually explicit nonviolent pornographic film with no victim "benefit", they were significantly more aggressive towards the female confederate than were the male subjects who were shown either a sexually explicit violent pornographic film with ambiguous victim "benefit" or a neutral film.[86] Further, as with the studies cited earlier on same-sex male aggression following exposure to sexually explicit but nonviolent pornography, the males in this study who were shown either of the sexually explicit films were moderately more aggressive towards the male confederate than were the subjects shown the neutral film.

3. **Violent pornography indicating either a positive or a negative victim "benefit" increases angered male laboratory aggression against females, but only violent pornography depicting a positive victim "benefit" increases nonangered male laboratory aggression:**

   When male subjects were angered by a male or female confederate and shown either a five-minute sexually explicit violent pornographic (rape) film indicating a "positive benefit" ending for the female victim or a similar film indicating a "negative benefit" ending, they were significantly more aggressive towards the female confederate[87] than male subjects who were shown either a neutral film or a sexually explicit but nonviolent pornographic film.[88] Further, the males who were shown either of the violent pornography films increased their aggression towards the male confederate, but not as much as the subjects who had viewed either the neutral or sexually explicit or nonviolent films.

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[85] Malamuth (1978).

[86] Donnerstein (1980a), (1980b).

A second similar study followed up on this latter finding but found that only the nonangered males shown the "negative benefit" film displayed the same low level of laboratory aggression as those shown either the neutral or nonviolent pornographic film.[89]

Medium-Term Exposure

While there have been no studies designed specifically to examine the medium-term effects of violent pornography on laboratory aggression, nonetheless one study addresses the impact on subjects over a period of weeks. Further research on these longer-term effects should be conducted before conclusions are made.

4. **Medium-term exposure to violent or nonviolent pornography has no effect on laboratory aggression:**

When nonangered male subjects were shown two feature-length pornographic films a week for three weeks, read pornographic written passages during the fourth week, and were angered by a female confederate in a fifth week followed by an opportunity to aggress, neither violent nor nonviolent pornography had an effect on laboratory aggression.[90]

Sexual Arousal

Some researchers have suggested that, because "normal" males (i.e., nonrapists) would not respond with sexual arousal to depictions of rape in violent pornography, sexual arousal to rape scenes would be a reliable and valid indicator of a predisposition to commit rape.[91] However, the research making this claim can argue only that they are associated and not that one caused the other. Further, it appears that a significant proportion of the normal male population responds with sexual arousal in much the same manner as rapists.

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[87] The laboratory aggression was only slightly greater in males shown the "positive benefit" film.

[88] Donnerstein and Berkowitz (1981).

[89] Donnerstein and Berkowitz (1981).

[90] Malamuth and Ceniti (1986).

5. **Violent pornography depicting the rape of a "willing victim" experiencing pleasure from the rape produces the same level of sexual arousal in normal males under laboratory conditions as sex offenders:**

   When "normal" male subjects (i.e., non sex offenders) are exposed to violent pornography depicting the rape of a "willing victim" experiencing pleasure from the rape then the laboratory sexual arousal response of normal males increases to a level similar to the response of sex offenders.[92]

3.2 Nonlaboratory Research on Behaviour

Research on sex offenders, such as rapists, is not reviewed fully here. However, it appears that **explicit pornography does not play a role in the causation of sex offences: instead it is the actual commission of sexual assaults on children or adults for some other cause that is the beginning of an overall process. Repeated experiences of sexual offences lead to a desire for any stimulus that either directly describes the deviant acts or generates fantasies matching the deviant act.**

It should also be noted that, because it is ethically improper to conduct nonlaboratory experiments on subjects, it is not possible to test whether nonrapists exposed to violent pornography would commit a rape if given a practical opportunity to do so. Accordingly, clinical studies of known sex offenders, who are usually under some form of institutional treatment program, provide only partial evidence of a link between pornography and sexual violence.

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[91] Abel, Barlow, Blanchard and Guild (1977), Malamuth (1981a; 1981b, 1984).

[92] For non-rapists, see Malamuth (1981a; 1981b; 1984), Malamuth and Check (1983), Malamuth and Donnerstein (1982), Malamuth, Haber and Feshbach (1980), Malamuth, Heim and Feshbach (1980) cf. Abel, Barlow, Blanchard and Guild (1977).

For rapists, see Abel and Blanchard (1974), Abel, Blanchard and Becker (1976; 1978).

The majority of known homosexual child molesters and rapists under treatment in this study used pornography at least occasionally while heterosexual child molesters used child pornography.[93] Both homosexual and heterosexual child molesters used child pornography to initiate their behaviour. Nearly 40 per cent of the rapists examined used "consenting" (i.e., nonviolent) pornography immediately prior to committing an offence. Pornography was used by both child molesters and rapists as an instigator for crime or for deviant fantasies.

Rapists in this study[94] reported a much greater use of consensual (i.e., nonviolent) and nonconsensual (i.e., violent) pornography while child molesters reported a much greater use of child pornography than did both the incest offenders and nonoffenders. The pornography was used for pre-offence inciting. Child molesters (both homosexual and heterosexual) and rapists were more frequently exposed to pornography during prepubescence than incest offenders.

Rapists were less aroused by depictions of forceful (i.e., violent) sex than they were by stimuli describing mutually enjoyable sex (i.e., erotica). It was concluded that poorly socialized male subjects were more influenced by exposure to pornography than were adequately socialized subjects.[95]

3.3 Laboratory Research on Attitudes

Overall, the main laboratory effect of violent pornography on male attitudes is to reinforce and strengthen already existing negative attitudes towards sexual aggression against females.

The research suggests that for violent pornography to have an effect on male attitudes towards rape, the female victim must be depicted as experiencing a positive or pleasurable benefit. However, the contradictory element of the myth of the "willing rape victim" is self-evident from real life experiences of sexual assault victims.[96]

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[93] Marshall.

[94] Marshall.

[95] Marshall.

[96] This view has been supported in Canadian case law; see *R v. Pappajohn* (1977), 38 C.C.C. (2d) 106.

Nonetheless, those males who report they are more likely to commit a rape if it were guaranteed they would not be caught appear to be more receptive to the "willing rape victim" myth in violent pornography.[97] Research studies have yet to determine whether one of these two attitudes comes first, thus having an effect on the other, or whether both are influenced by some prior "sex-calloused" predisposition for which a cause has yet to be identified.

Short-Term Effects

A group of studies has focused on the de-sensitizing effects on male attitudes towards females of the "pleasurable rape" scenario in violent pornography.

1. **Violent pornography depicting the rape of a "willing victim" shown as experiencing pleasure from the rape increases male tolerance for hypothetical sexual violence against females:**

   When male subjects read a rape story (i.e., violent pornography) depicting the victim as being sexually aroused (i.e., receiving a positive "benefit") and read a second rape story depicting the victim as not experiencing pleasure, they judged the second victim as suffering less pain than those who first read a nonviolent (i.e., nonrape) but sexually explicit pornographic story.[98] Nonetheless, the first group of subjects were more punitive than the second group when asked to assign an appropriate sentence.

   As well, this study found that 51 per cent of the male subjects, whether they read nonviolent pornographic story or the violent pornographic story, reported that they might hypothetically behave as the rapist in the second story if it were guaranteed that they would not be caught.[99] However, males who respond in this manner are generally more responsive to violent pornography, but there is no evidence that this predisposition is in itself linked to violent pornography.[100]

   A second study found that, when male subjects listened to a rape story (i.e., violent pornography) depicting the victim as being sexually aroused

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[97] See the studies below by Malamuth, Resin and Spinner (1979), Malamuth (1984) and Malamuth and Check (1985).

[98] Malamuth, Haber and Feshbach (1980).

[99] This last point was incorrectly reported by Scott (1985).

[100] Malamuth (1984).

(i.e., receiving a positive "benefit") and read a second rape story depicting the victim as not experiencing pleasure, then they judged the second victim as suffering less trauma than those who first listened to a nonviolent (i.e., nonrape) but sexually explicit pornographic story.[101] As well, while there were no differences between the two groups with respect to their own reported likelihood to rape (as in the previous experiment), the first group of males reported they believed that a higher percentage of males in general would say they would commit a rape.

2. **Violent pornography depicting rape without pleasure for the victim does not create more tolerant male attitudes towards rape:**

By contrast to the above two studies, a third study found that, when male subjects were exposed to sexually explicit violent pornographic material from *Playboy* and *Penthouse* magazines, there were no effects on their attitudes towards rape victims viewed in video interviews.[102] However this study did not discriminate between positive and negative "benefits" for the rape victim.[103]

3. **Violent pornography depicting the rape of a "willing victim" who experiences pleasure from the rape increases tolerant attitudes towards sexual violence against females in males reporting a high likelihood to rape under certain conditions:**

When male subjects, classified as reporting either a low likelihood or a high likelihood to rape under certain conditions, read a sexually explicit violent pornographic written passage depicting the rape victim as being sexually aroused and read a second rape story realistically depicting the victim as not experiencing pleasure, they both judged equally that the second victim experienced more pleasure and less pain than those who first read a nonviolent (i.e., nonrape) but sexually explicit pornographic story.[104] However, attitudes of the high-likelihood-to-rape group of men were affected by the "willing rape victim" story while the attitudes of the low-likelihood-to-rape group were not affected: a larger proportion of the first group of men thought women would enjoy rape and would enjoy being forced into intercourse.

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[101] Malamuth and Check (1980a).

[102] Malamuth, Reisin and Spinner (1979).

[103] See Malamuth (1984).

[104] Malamuth and Check (1985).

Medium-Term and Long-Term Effects

There do not appear to be any studies of the medium-term or long-term effects of violent pornography on the attitudes of males with respect to sexual aggression against females.

3.4 Nonlaboratory Research on Attitudes

While it is impossible for researchers to test whether nonrapists exposed to violent pornography would commit a rape if given a practical opportunity to do so, it is possible to examine the degree of congruence between (1) laboratory sexual arousal, (2) attitudes towards rape, (3) later laboratory aggression, and (4) self-reports of actual sexual offences. Studies employing this research design suggest that the first two factors are good predictors of the last two factors.[105] However, it is impossible to identify which of the factors causes the others, if any do at all. Other, additional factors may have caused all four. As well, one or more of these "predictive factors", such as sexual arousal from violent pornography, may be absent when sexual violence occurs.

1. **Sexual arousal in response to "willing rape victim" stories, negative attitudes towards females, and positive attitudes towards violence are relatively sound, joint predictors of self-reported sexual aggression:**

   A first study established the predictive relationship between the first three factors inside the laboratory.[106] When male subjects listened to a rape story (i.e., violent pornography) and a consenting sex story (i.e., nonviolent pornography), those subjects who found the first story to be more sexually arousing were also found to have positive attitudes towards the "willing rape victim" myth and towards physical violence against females. A few days later they demonstrated a tendency to exhibit laboratory aggression against females and a desire to inflict physical violence against females.

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[105] Malamuth (1983; 1986).

[106] Malamuth (1983).

A second study[107] examined the relationship between the three main factors and the fourth factor – self-reported sexual aggression outside the laboratory.[108] When male subjects (1) responded to a questionnaire eliciting self-reported information on (i) dominance as a sexual motive, (ii) hostility towards females, (iii) attitudes facilitating violence and (iv) anti-social characteristics, and (2) their sexual arousal to rape and nonrape sex stories was measured, all factors with the exception of the anti-social measure, were found to be statistically related to self-reported sexually aggressive behaviour.

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[107] Malamuth (1986).

[108] See the scale developed by Koss and Oros (1982).

4.0 EFFECTS OF SEXUAL VERSUS VIOLENT COMPONENTS OF PORNOGRAPHY

Overall, the research studies suggest strongly that violence against females need not be depicted in a pornographic or sexually explicit presentation in order to have a significant effect on the negative attitudes and behaviour of males towards females. Explicit depictions of violent sexual behaviour significantly increases laboratory aggression, including those depictions that portray the "willing rape victim". Significant effects have also been demonstrated where the actual rape in the "willing rape victim" scenario is nonexplicit or implied in the plot of prime-time television shows and feature films, where there is a rape and the female victim later displays affection for the male perpetrator. Hence the mere implication of violence can have a negative effect on male attitudes towards women.

4.1 Laboratory Research on Behaviour

Short-Term Exposure

1. **Explicitly violent nonpornographic films significantly increase laboratory violence in males towards females and have a greater effect than do sexually explicit but nonviolent pornographic films:**

   When male subjects were angered by a male or female confederate and shown (1) a sexually explicit violent pornographic film, (2) a sexually explicit but nonviolent pornographic film, (3) an explicitly violent nonpornographic film, or (4) a neutral film, then the males who viewed the sexually explicit violent pornographic film were significantly more aggressive towards a female confederate than those who viewed the other films.[109] Further, the explicitly violent film generated more aggression towards the female confederate than either the sexually explicit nonviolent or the neutral films.

Long-Term Exposure

2. **Explicit violence increases emotional "desensitization" towards further explicit violence:**

   When male children were shown a two-minute nonviolent film followed by four-minute chase sequence from a feature film and an eight-minute film of a fictional boxing match, the heavy consumers of television (42 hours a week) were significantly less physiologically aroused than were the light consumers of television (under four hours a week).[110]

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[109] Donnerstein, Berkowitz and Linz (1986).

A second study found similar results when male and female children were first shown violent and nonviolent television shows and were subsequently shown apparently real violence viewed over a television monitor while their level of physiological arousal was recorded.[111]

A third study also produced similar results when adults viewed violent and nonviolent television shows, followed by a violent but real television news item while the subjects' level of physiological arousal was measured, but the effect was produced only for the males.[112]

3. **Prolonged exposure to explicit violence may increase "desensitization" towards further aggression:**

When male subjects were shown explicitly violent films they had lower levels of physiological arousal and increased laboratory aggression towards a female confederate than subjects who were shown nonviolent films.[113] However, the differences were small and, when both groups were angered, no significant differences were produced.

A second study[114] found that, while there were differences in the levels of physiological arousal between the two groups of subjects, there were no significant differences in the levels of laboratory aggression. Indeed, the most aggressive subjects were those who had viewed an exciting but nonviolent film scene followed by a scene of justified aggression.

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[110] Cline, Croft and Courrier (1973).

[111] Thomas, Horton, Lippencott and Drabman (1977).

[112] Thomas, Horton, Lippencott and Drabman (1977).

[113] Thomas (1982).

[114] Geen (1981).

4.2 Nonlaboratory Research on Behaviour

Results from a large-scale, longitudinal, cross-national study of the impact of children's long-term consumption of television on their aggressiveness supports the view that prolonged exposure to media violence may lead to increased aggression.[115] However, while there is some indication that aggressive tendencies in adulthood are related to prolonged exposure to television violence in childhood, no nonlaboratory studies have been conducted to date of adult viewing of television violence.

1. **Prolonged exposure to media violence increases aggression:**

   When the level of viewing of television violence by male and female children was examined, it was found to be directly related to the level of aggressive behaviour rated by peers.[116]

4.3 Laboratory Research on Attitudes

Overall, studies examining whether nonexplicit depictions of sexual violence have an effect on consumers' attitudes towards sexual violence and females generally have concluded that the **violence does not have to be explicit in order to have a deleterious effect on male attitudes towards explicit sexual violence against females.**

Short-Term Exposure

1. **Nonexplicit sexual violence increases male tolerance towards explicit sexual violence against females:**

   When male and female subjects viewed feature films containing nonexplicit sexual violence (The Getaway and Swept Away) as part of an apparent film review study, male subjects reported an increased tolerance for attitudes towards interpersonal violence and towards the "willing rape victim" myth when compared with male subjects shown neutral films and with all female viewers of all types of films.[117]

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[115] Eron and Huesmann (1980), Huesmann, Eron, Klein, Brice and Fischer (1981).

[116] Eron and Huesmann (1980), Huesmann, Eron, Klein, Brice and Fischer (1981).

[117] Malamuth and Check (1981a).

2. **Explicitly violent, sexually nonexplicit depictions increase tolerant attitudes towards explicit sexual violence against females:**

When male subjects were angered by a female confederate and shown (1) a sexually explicit violent rape film, (2) a sexually nonexplicit but violent rape film, or (3) a sexually explicit but apparently nonviolent rape film, then the group (50 per cent) whose female confederate had the same name as the rape victim depicted in the films and who viewed the sexually nonexplicit violent rape film had the greatest increase in more tolerant attitudes towards rape and the largest proportion of subjects who reported some likelihood of raping or using force against a female.[118]

Medium- and Long-Term Exposure

3. **Prolonged exposure to explicitly violent nonpornographic depictions increases tolerant attitudes towards further explicit violence against females, including females in more realistic contexts:**

When male subjects were shown six explicitly violent films over five days, depicting mainly female victims often attacked in a sexual context, (1) their ratings of depression declined while at the same time their enjoyment increased with exposure, (2) their emotional reactions decreased with exposure, (3) their perceptions of the level of violence portrayed decreased with exposure, (4) their ratings of how degrading the films were to females declined with exposure, and (5) they were more desensitized towards further explicit violence against females.[119] A second study[120] found similar results, in which (1) the subjects' ratings of the level of violence decreasing with exposure and (2) their ratings of how degrading the films were to females declined with exposure, although (3) their ratings of enjoyment changed little. As well, the subjects were less sympathetic to the victim depicted in a rape trial following their exposure to violence.

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[118] Donnerstein, Berkowitz and Linz (1986).

[119] Linz, Donnerstein and Penrod (1984).

[120] Linz (1985).

4.4 Nonlaboratory Research on Attitudes

No nonlaboratory studies were reviewed that examined the effects of short-term or long-term exposure to media violence on attitudes.[121]

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[121] Research conducted for the "La Marsh Commission" on violence in the media may prove a fruitful body of relevant studies.

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APPENDIX A

RESEARCH SUPPORTING A NEGATIVE EFFECT

NEGATIVE EFFECTS OF NONVIOLENT PORNOGRAPHY

Laboratory Research on the Effects of Nonviolent Pornography on Behaviour

Donnerstein, Donnerstein and Evans (1975):

When male subjects were treated in a neutral manner and shown neutral photographs, mild nonviolent pornographic photographs or explicit nonviolent pornographic photographs, their levels of laboratory aggression remained unchanged, in contrast to those subjects who were first angered and shown any one of the photographs.

Mueller and Donnerstein (1981):

When male subjects were angered and shown highly arousing material in a laboratory, including sexually explicit but nonviolent pornographic films, they were more aggressive towards other males than those who had been shown nonpornographic films.[122] However, when male subjects were positively rewarded and shown a nonviolent pornographic film, they were more pro-social than those who had been shown a nonpornographic film.

Jaffe, Malamuth, Feingold and Feshbach (1974):

When nonangered male and female subjects read sexually explicit but nonviolent pornographic passages, they were all more aggressive towards opposite-sex targets. However, there was no evidence that males were more aggressive towards females (or other males) than females were against males (or other females). However, from the previously cited research it appears that most subjects, especially males, generally need to be angered in order that aggression be later increased by nonviolent pornography, especially given the inhibitions males may have with respect to exhibiting aggression against females under laboratory conditions.

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[122] Zillmann (1971). See also Fisher and Harris (1976), Jaffe (1975), Jaffe, Malamuth, Feingold and Feshbach (1974), Meyer (1972a), Rosene (1971), Tannenbaum (1970), Zillmann, Hoyt and Day (1974).

Donnerstein and Barrett (1978):

When angered males were shown sexually explicit but nonviolent pornographic films, they were *more aggressive* than those who were shown a neutral film, but were *equally as aggressive towards both male and female targets*. However, all subjects displayed significant levels of physiological arousal, regardless of the gender of the target.

Donnerstein and Hallam (1978):

When male subjects were first shown a male model who aggressed against a male or female confederate with apparently real electric shocks, and then were angered and shown sexually explicit but nonviolent pornographic films, their aggression *did not increase* towards the female confederate, although it did towards the male confederate. However, this study also found that males viewing a male model displaying aggression towards a female confederate increased the male subjects' level of aggression towards females prior to being angered, so that it appears that the pornographic film later *reduced their aggression*.

Leonard and Taylor (1983):

When male subjects were shown nonviolent pornographic photographs (slides) while overhearing a female make permissive, positive comments about the subject matter, they exhibited *greater increased laboratory aggression* than those subjects who overheard nonpermissive, negative comments.

Donnerstein and Hallam (1978):

When males were angered and shown sexually explicit but nonviolent pornographic films, their laboratory aggression *did increase* more than that of those who were shown nonpornographic films, when they were given a *second* opportunity to aggress against a female some ten minutes after a first opportunity.

Malamuth and Ceniti (1986):

When males were angered and shown nine hours of sexually explicit but nonviolent pornographic films, photographs and written passages over a period of three weeks, and given an opportunity to aggress against a female, their aggression *did not increase* more than that of those who have been shown nonpornographic films.

Nonlaboratory Research on the Effects of Nonviolent Pornography on Behaviour

Court (1984):

A study of official rates in 1964 and 1974 for rape in the United States, England and Wales, Copenhagen, Stockholm, Australia and New Zealand shows significant increases of 139 per cent, 94 per cent, 84 per cent, 41 per cent, 160 per cent and 107 per cent respectively, and a decrease for Japan of 45 per cent. These changes occurred while pornography of all kinds as well as reports of sexual assaults increased.

Court (1984):

Singapore did not liberalize antipornography laws between 1964 and 1974 and showed a comparatively lower increase in the official rate for sexual assault (rape), of 69 per cent. However, the even lower increase in the rate for Stockholm over the same period has not been explained.

Court (1984):

Anti-pornography laws in Japan became even more restrictive between 1964 and 1974 and showed a significant decrease in the official rate for rape. However, the decline in rape was consistent with a decline in the official overall violent crime rate. On the other hand, Japanese pornography is particularly violent while rape rates are comparatively low.

Court (1984):

Official rape reports increased until 1974 in Hawaii when anti-pornography laws were imposed, decreased over the next two years and then increased again after the laws were liberalized again in 1976. A similar pattern was found in Denmark.

Laboratory Research on the Effects of Nonviolent Pornography on Attitudes

Kenrick, Gutierres and Goldberg (1987):

When male subjects were shown photographs of nude females from *Playboy* and *Penthouse* magazines, they rated the physical attractiveness of a photograph of an "average" female nude significantly less than those subjects who were first shown a similar "average" nude photograph.

Kenrick, Gutierres and Goldberg (1987):

Subjects rated their intimate partners' physical attractiveness significantly less after viewing the idealized nude models from *Playboy* and *Penthouse* magazines.[123]

Zillmann and Bryant (1984):

When nonangered male and female subjects were shown 36 ten-minute films over six weeks, those subjects who viewed 36 nonviolent pornographic films were significantly (1) more tolerant of less common and violent forms of pornography, (2) less supportive of sexual equality and the women's liberation movement, (3) more lenient in assigning punishment to a rapist than those who had viewed 36 nonpornographic films, and (4) moderately lenient when compared with those who viewed 18 nonpornographic and 18 pornographic films. As well, males' callousness towards women on sexual matters significantly increased. However no immediate impact on aggression was found.

Zillmann and Bryant (1986):

When nonangered male and female subjects were shown a one hour nonviolent pornographic film each week over six weeks, their satisfaction declined further with respect to their intimate partner's physical attractiveness and sexual performance than did that of those subjects who were shown sexually-neutral comedy films. As well, those who viewed the pornography were slightly more positive towards recreational sex with partners having no emotional commitment ("one-night stands").

NEGATIVE EFFECTS OF VIOLENT PORNOGRAPHY

Laboratory Research on the Effects of Violent Pornography on Behaviour

Malamuth (1978):

When male subjects read sexually explicit violent pornography accompanied by photographs and were subsequently angered by a female confederate, they were significantly more aggressive towards the female confederate under conditions that condoned aggression than were male subjects under conditions that inhibited aggression.

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[123] Similar findings were produced from studies conducted by Kenrick and Gutieres (1980), and by Cash, Cash and Butters (1983).

Donnerstein (1980a), (1980b):

When male subjects were angered by a male or female confederate and were shown a sexually explicit nonviolent pornographic film with no victim "benefit", they were significantly more aggressive towards the female confederate than were the male subjects who were shown either a sexually explicit violent pornographic film with ambiguous victim "benefit" or a neutral film. Further, as with the studies cited earlier on same-sex male aggression following exposure to sexually explicit but nonviolent pornography, the males in this study who were shown either of the sexually explicit films were moderately more aggressive towards the male confederate than were the subjects shown the neutral film.

Donnerstein and Berkowitz (1981):

When male subjects were angered by a male or female confederate and shown either a five-minute sexually explicit violent pornographic (rape) film indicating a "positive benefit" ending for the female victim or a similar film indicating a "negative benefit" ending, they were significantly more aggressive towards the female confederate[124] than male subjects who were shown either a neutral film or a sexually explicit but nonviolent pornographic film. Further, the males who were shown either of the violent pornography films increased their aggression towards the male confederate, but not as much as the subjects who had viewed either the neutral or sexually explicit or nonviolent films. A second similar study followed up on this latter finding, but found that only the nonangered males shown the "negative benefit" film displayed the same low level of laboratory aggression as those shown either the neutral or nonviolent pornographic film.

Laboratory Research on the Effects of Violent Pornography on Attitudes

Malamuth, Haber and Feshbach (1980):

When male subjects read a rape story (i.e., violent pornography) depicting the victim as being sexually aroused (i.e., receiving a positive "benefit") and then read a second rape story depicting the victim as not experiencing pleasure, then they judged the second victim as suffering less pain than those who first read a nonviolent (i.e., nonrape) but sexually explicit pornographic story. Nonetheless, the first group of subjects were more punitive than the second group when asked to assign an appropriate sentence. As well, 51 per cent of the male subjects, whether they read nonviolent pornographic story or the violent pornographic story, reported that they might hypothetically behave like the rapist in the second story if it were guaranteed that they would not be caught.

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[124] The laboratory aggression was only slightly greater in males shown the "positive benefit" film.

Malamuth (1984):

Male subjects who respond that they might commit a rape if there were a guarantee they would not be caught are generally more responsive to violent pornography but there is no evidence that this predisposition is caused by violent pornography.

Malamuth and Check (1980a):

When male subjects listened to a rape story (i.e., violent pornography) depicting the victim as being sexually aroused (i.e., receiving a positive "benefit") and read a second rape story depicting the victim as not experiencing pleasure, they judged the second victim as suffering less trauma than did those who first listened to a nonviolent (i.e., nonrape) but sexually explicit pornographic story. As well, while there were no differences between the two groups with respect to their own reported likelihood to rape (as in the previous experiment), the first group of males reported they believed that a higher percentage of males in general would say they would commit a rape.

Malamuth and Check (1985):

When male subjects, classified as reporting either a low likelihood or a high likelihood to rape under certain conditions, read a sexually explicit violent pornographic written passage depicting the rape victim as being sexually aroused and read a second rape story realistically depicting the victim as not experiencing pleasure, they judged equally the second victim as experiencing more pleasure and less pain than those who first read a nonviolent (i.e., nonrape) but sexually explicit pornographic story. However, attitudes of the high-likelihood-to-rape group of men were affected by the "willing rape victim" story, while the attitudes of the low-likelihood-to-rape group were not affected: a larger proportion of the first group of men were thought women would enjoy rape and would enjoy being forced into intercourse.

Nonlaboratory Research on the Effects of Violent Pornography on Attitudes

Malamuth (1983):

When male subjects listened to a rape story (i.e., violent pornography) and a consenting sex story (i.e., nonviolent pornography), those subjects who found the first story to be more sexually arousing were also found to have positive attitudes towards the "willing rape victim" myth and towards physical violence against females. A few days later they demonstrated a tendency to exhibit laboratory aggression against females and a desire to inflict physical violence on females.

Malamuth (1986):

When male subjects (1) responded to a questionnaire eliciting self-reported information on (i) dominance as a sexual motive, (ii) hostility towards females, (iii) attitudes facilitating violence and (iv) anti-social characteristics, and (2) their sexual arousal to rape and nonrape sex stories was measured, all factors, with the exception of the anti-social measure, were found to be statistically related to self-reported sexually aggressive behaviour.

NEGATIVE EFFECTS OF SEXUAL VERSUS VIOLENT COMPONENTS OF PORNOGRAPHY

Laboratory Research on the Effects of Violent Materials on Behaviour

Donnerstein, Berkowitz and Linz (1986):

When male subjects were angered by a male or female confederate and shown (1) a sexually explicit violent pornographic film, (2) a sexually explicit but nonviolent pornographic film, (3) an explicitly violent nonpornographic film, or (4) a neutral film, the males who viewed the sexually explicit violent pornographic film were significantly more aggressive towards a female confederate than those who viewed the other films. Further, the explicitly violent film generated more aggression towards the female confederate than either the sexually explicit nonviolent or the neutral films.

Cline, Croft and Courrier (1973):

When male children were shown a two-minute nonviolent film followed by a four-minute chase sequence from a feature film and an eight-minute film of a fictional boxing match, the heavy consumers of television (42 hours a week) were significantly less physiologically aroused than the light consumers of television (under four hours a week).

Thomas, Horton, Lippencott and Drabman (1977):

A study in which male and female children were shown violent and nonviolent television shows and then apparently real violence viewed over a television monitor while their level of physiological arousal was recorded, produced similar results to Cline, Croft and Courrier (1973).

Thomas, Horton, Lippencott and Drabman (1977):

A study of adults who viewed violent and nonviolent television shows followed by a real television violent news item, while the subjects' level of physiological arousal was measured, produced similar results to Cline, Croft and Courrier (1973), but the effect was produced only for the males.

Thomas (1982):

When male subjects were shown explicitly violent films, they had lower levels of physiological arousal and increased laboratory aggression towards a female confederate than subjects who were shown nonviolent films. However the differences were small and, when both groups were angered, no significant differences were produced.

Geen (1981):

When male subjects were shown explicitly violent films, they had lower levels of physiological arousal and increased laboratory aggression towards a female confederate than subjects who were shown nonviolent films. However, while there were differences in the levels of physiological arousal between the two groups of subjects, there were no significant differences in the levels of laboratory aggression. Indeed, the most aggressive subjects were those who had viewed an exciting but nonviolent film scene followed by a scene of justified aggression.

Nonlaboratory Research on the Effects of Media Violence on Behaviour

Eron and Huesmann (1980), Huesmann, Eron, Klein, Brice and Fischer (1981):

When the level of viewing of television violence by male and female children was examined, it was found to be directly related to the level of aggressive behaviour rated by peers.

Laboratory Research on the Effects of Media Violence on Attitudes

Malamuth and Check (1981a):

When male and female subjects viewed feature films containing nonexplicit sexual violence (*The Getaway* and *Swept Away*) as part of an apparent film review study, male subjects reported an increased tolerance for attitudes towards interpersonal violence and towards the "willing rape victim" myth when compared with male subjects shown neutral films and with all female viewers of all types of films.

Donnerstein, Berkowitz and Linz (1986):

When male subjects were angered by a female confederate and shown (1) a sexually explicit violent rape film, (2) a sexually nonexplicit but violent rape film, or (3) a sexually explicit but apparently nonviolent rape film, the group (50 per cent) whose female confederate had the same name as the rape victim depicted in the films and who viewed the sexually nonexplicit violent rape film had the greatest increase in more tolerant attitudes towards rape and the largest proportion of subjects who reported some likelihood of raping or using force against a female.

Linz, Donnerstein and Penrod (1984):

When male subjects were shown six explicitly violent films over five days, depicting mainly female victims often attacked in a sexual context, then (1) their ratings of depression declined while at the same time their enjoyment increased with exposure, (2) their emotional reactions decreased with exposure, (3) their perceptions of the level of violence portrayed decreased with exposure, (4) their ratings of how degrading the films were to females declined with exposure, and (5) they were more desensitized towards further explicit violence against females.

Linz (1985):

When male subjects were shown six explicitly violent films over five days, depicting mainly female victims often attacked in a sexual context, (1) the subjects' ratings of the level of violence decreased with exposure and (2) their ratings of how degrading the films were to females declined with exposure, although (3) their ratings of enjoyment changed little. As well, the subjects were less sympathetic to the victim depicted in a rape trial following exposure to violence.

APPENDIX B

RESEARCH SUPPORTING A POSITIVE EFFECT

POSITIVE EFFECTS OF NONVIOLENT PORNOGRAPHY

Laboratory Research on the Effects of Nonviolent Pornography on Behaviour

Baron (1974b):

Whether or not male subjects were first angered or treated in a neutral manner, after they were shown mild nonviolent pornography, they were significantly less aggressive towards other males than the angered subjects who viewed nonpornographic films and displayed almost the same level of low laboratory aggression as the nonangered subjects who viewed nonpornographic films.[125]

Baron (1979):

When female subjects were angered and shown photographs of neutral material, males in bathing suits, nude males and explicit nonviolent pornography (sexual acts), they were more aggressive if they viewed the swimsuit males, and showed no increase in aggression if they viewed the nude male or neutral photographs. The nonangered females showed no increase in aggression in response to any of the photographs.

Jaffe, Malamuth, Feingold and Feshbach (1974):

Prolonged exposure to explicit nonviolent pornography reduces laboratory aggression.

When nonangered male and female subjects were shown 36 films a week for six weeks, those subjects who viewed 36 nonviolent pornographic films demonstrated significantly less physiological and (self-reported) emotional arousal than those who had viewed 36 nonpornographic films and moderately less physiological and emotional arousal than those who viewed 18 nonpornographic and 18 pornographic films.

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[125] See also Baron (1974a, 1977, 1983a, 1983b), Baron and Bell (1973, 1977), Donnerstein, Donnerstein and Evans (1975), Frodi (1977), White (1979), Zillmann and Sapolsky (1977).

Baron and Bell (1973):

When nonangered males were shown mild, nonviolent pornographic photographs, they were significantly less aggressive towards both males and females than those subjects who were not shown the pornographic photographs and they were less aggressive towards females than towards other males.

Donnerstein and Hallam (1978):

When males exhibiting traditional sex role attitudes[126] were first angered by a male or female confederate, and then shown sexually explicit but nonviolent pornographic films, there was no increase in aggression when compared with both the other subjects who viewed a nonpornographic film and those who had liberal sex role attitudes. As well, there was no evidence that males were more aggressive towards females after viewing nonviolent pornography.

Nonlaboratory Research on the Effects of Nonviolent Pornography on Behaviour

Scott (1985):

A study of official rates of reported rape in 50 states showed them to be statistically unrelated to the number of adult book stores and adult theatres but to be statistically related to the circulation of outdoor magazines such as *Field and Stream* and *American Rifleman*.

Baron and Straus (1984), (1985), (1986):

Official rates of reported rape in 50 states were significantly related to an index of the subscription and the newsstand circulation of eight pornographic magazines, with a positive correlation of 0.63 in 1979, 0.55 in 1980, and 0.64 for the 1980-82 period. However, the researchers commented that this association did not prove a causal relationship and that a third variable, such as inter-state attitudinal differences, might explain different rape levels.

Baron and Straus (1986):

Official rates of reported rape in 40 states were significantly related to attitudes approving violence and statistically unrelated to pornographic magazine circulation. The researchers suggested that attitudes favourable to violence accounted for both rape rates and magazine circulation and that these attitudes are part of "hypermasculinity" (i.e., "macho") personality characteristics. Accordingly, these attitudes and the personality type would have to be explained by factors other than pornography.

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[126] i.e., attitudes such as "women's place is in the home". See Spence and Helmreich (1978) for a scale of these attitudes.

Kant and Goldstein (1978):

Known sex offenders were found to have had less exposure to nonviolent pornography as teenagers and adults than nonoffenders. The authors also found that a family background with conservative sexual attitudes and repressed discussions on sexual matters is a better statistical predictor of sex crimes and other deviant sexual activities than self-reports of the influence of pornography consumption on activities.

Cook, Fosen and Pacht (1971):

Sex offenders were found to have less experience generally with pornography than nonoffenders.

Abel, Mittelman and Becker (1985):

The frequency of sex crimes, the number of victims, the ability to control deviant urges, the age of the offender, and the degree of violence was found to be statistically unrelated to the use of pornography by known sex offenders.

Laboratory Research on the Effects of Nonviolent Pornography on Attitudes

Dermer and Pyszcynski (1978):

When male subjects read sexually explicit but nonviolent pornographic written passages from adult magazines, their attitudes towards their intimate partners became significantly more positive. These findings are consistent with the clinical research on the therapeutic effects of mild monviolent pornography on sexual dysfunctions and dissatisfactions by intimate sexual partners with their physical relationship.[127]

Linz (1985):

When nonangered male subjects were shown five unedited, sexually explicit, feature-length films over two weeks (nearly eight hours in total), there were no significant increases in their tendency to (1) hold calloused attitudes about rape, (2) view women as sex objects, (3) blame rape victims, or (4) view rapists as less blameworthy.

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[127] Yaffe and Nelson (1982), Wilson (1978).

Malamuth and Ceniti (1986):

No impact on attitudes towards females was found with respect to the subjects' self-reported likelihood of raping a victim under conditions where the offender would hypothetically not be caught.

Krafka (1985):

No increased tendency was found for females viewing full-length, unedited, sexually explicit feature films to (1) engage in sex-role stereotyping, (2) experience lower self-esteem, (3) report less satisfaction with their body image, (4) report more negative beliefs about rape, or (5) show greater acceptance of violence against women, when they were compared with females who had not viewed these films.

POSITIVE EFFECTS OF VIOLENT PORNOGRAPHY

Laboratory Research on the Effects of Violent Pornography on Behaviour

Donnerstein (1980a), (1980b):

When male subjects were angered by a male or female confederate and were shown a sexually explicit nonviolent pornographic film with no victim "benefit", they were significantly more aggressive towards the female confederate than were the male subjects who were shown either a sexually explicit violent pornographic film with ambiguous victim "benefit" or a neutral film. Further, as with the studies cited earlier on same-sex male aggression following exposure to sexually explicit but nonviolent pornography, the males in this study who were shown either of the sexually explicit films were moderately more aggressive towards the male confederate than were the subjects shown the neutral film.

Malamuth and Ceniti (1986):

When nonangered male subjects were shown two feature-length pornographic films a week for three weeks, read pornographic written passages during the fourth week, and were angered by a female confederate in a fifth week followed by an opportunity to aggress, neither violent nor nonviolent pornography had an effect on laboratory aggression.

Miscellaneous studies:

When "normal" male subjects (i.e., not sex offenders) were exposed to violent pornography depicting the rape of a "willing victim" experiencing pleasure from the rape, the laboratory sexual arousal response of normal males increased to a level similar to the response of sex offenders.[128]

Laboratory Research on the Effects of Violent Pornography on Attitudes

Malamuth, Reisin and Spinner (1979):

When male subjects were exposed to sexually explicit violent pornographic material from *Playboy* and *Penthouse* magazines, there were no effects on attitudes towards rape victims viewed in video interviews. However, this study did not discriminate between positive and negative "benefits" for the rape victim.

POSITIVE EFFECTS OF SEXUAL VERSUS VIOLENT COMPONENTS OF PORNOGRAPHY

Laboratory Research on the Effects of Violent Materials on Behaviour

Donnerstein, Berkowitz and Linz (1986):

When male subjects were angered by a male or female confederate and shown (1) a sexually explicit violent pornographic film, (2) a sexually explicit but nonviolent pornographic film, (3) an explicitly violent nonpornographic film, or (4) a neutral film, the males who viewed the sexually explicit violent pornographic film were significantly more aggressive towards a female confederate than those who viewed the other films. Further, the explicitly violent film generated more aggression towards the female confederate than either the sexually explicit nonviolent or the neutral films.

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[128] For non-rapists, see Malamuth (1981a; 1981b; 1984), Malamuth and Check (1983), Malamuth and Donnerstein (1982), Malamuth, Haber and Feshbach (1980), Malamuth, Heim and Feshbach (1980) cf. Abel, Barlow, Blanchard and Guild (1977).

For rapists, see Abel and Blanchard (1974), Abel, Blanchard and Becker (1976; 1978).

Thomas (1982):

When angered male subjects were shown explicitly violent films, there were no significant differences produced in the levels of physiological arousal and laboratory aggression towards a female confederate compared to subjects who were shown nonviolent films.

Geen (1981):

When male subjects were shown explicitly violent films, they had lower levels of physiological arousal and increased laboratory aggression towards a female confederate than subjects who were shown nonviolent films. However, while there were differences in the levels of physiological arousal between the two groups of subjects, there were no significant differences in the levels of laboratory aggression. Indeed, the most aggressive subjects were those who had viewed an exciting but nonviolent film scene followed by a scene of justified aggression.

PART II

1.0 THE SOCIAL SCIENCE STUDIES OF PORNOGRAPHY: AN UPDATE

1.1 Introduction

Few areas have received such close scrutiny by academics and government inquiries as pornography and its impact on society.[129] The subject was examined closely in Canada by the Fraser Committee,[130] in the United States by the Attorney General's Committee[131] and by the U.S. Surgeon General,[132] in the United Kingdom by the Williams Committee,[133] and in Australia by a joint committee in the federal parliament under the chairmanship of Senator Klugman.[134]

The social science evidence for the harmfulness of pornography is controversial, and predictably these various inquiries have disagreed on its value. The Fraser Committee took the position that the evidence available then was simply not sound enough to ground public policy. By contrast, the US Attorney General's Committee concluded that violent pornography was harmful to both male attitudes and conduct towards women; explicit pornography negatively influenced attitudes. Two commissioners dissented from the majority on the basis of social science evidence. The Surgeon General's seminar ("Pornography and Public Health") came to much the same conclusion as the Attorney General's Committee. In Australia, Senator Klugman's committee was split six to five over the same evidence, and accordingly filed two reports. The inquiries in the three countries examined basically the same evidence, but came to quite different conclusions.

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[129] Einsiedel (1988).

[130] Fraser Committee (1985).

[131] Attorney General's Committee (1986).

[132] US Surgeon General (1987).

[133] United Kingdom (1979).

[134] Australia (1988).

This paper attempts to update the reader's knowledge in this area by reviewing the contemporary literature. With Barry Leighton's *Guide to the Social Science Evidence on the Effects of Pornography* (1988) forming the point of departure, this part basically reports on relevant contributions that have since been published.

1.2 Conceptual Background: Three Key Dimensions

By way of introduction, it is helpful to describe conceptually how the social science literature is organized around pornography. There are three major dimensions:

(i) types of pornography,
(ii) types of negative effects, and
(iii) the kinds of approaches that have been devised to investigate the linkages between (i) and (ii).

First, researchers have asked whether visually explicit pornography (depicting nudity and sex acts) has effects different from violent pornography (that runs the gamut of sexually explicit films; depicting women in a degrading fashion, to "snuff" and "slasher" films, that depict the torture and/or murder of women in a sexual context)

Second, when one talks about effects, one is not interested in the immediate arousal, but in the longer-term, potentially negative impact of pornographic materials on both attitudes and behaviour: that is (i) do men become more callous in their attitudes to women, less sympathetic to their legitimate interests, less caring about victims of sexual assault; and (ii) are the male viewers of pornography more likely than nonviewers to act aggressively towards women as a result of their exposure?

Finally, in exploring the linkage, there are three major methodological approaches that are evident in the literature. They are: experimental studies by psychologists investigating the links between pornographic exposure and attitudes and behaviour in the laboratory; correlational studies by criminologists exploring the relationship between pornography circulation figures and sex crimes; and retrospective clinical studies of populations of known sex offenders and the role of pornography in the development of their inclination to aggress. In theory, there ought to be twelve types of evidence, as the following chart suggests. In point of fact, studies exist for only six of the twelve cells. This is because the correlational and clinical studies have focused on behaviour (principally rape), and typically have failed to distinguish betweem the types of pornography.

Table 2 Types of Evidence

	EXPLICIT PORNOGRAPHY		VIOLENT PORNOGRAPHY	
Experimental	Attitudes	Behaviour	Attitudes	Behaviour
Corretional	Attitudes	Behaviour	Attitudes	Behaviour
Clinical	Attitudes	Behaviour	Attitudes	Behaviour

1.3 Summary of Leighton's Review

In his review of the impact of nonviolent pornography, Barry Leighton suggested the following:

1. In short-term experiments designed to associate sexual arousal and physical aggression, nonviolent pornography appears to inhibit aggression by males against females, or to have no effect. In longer-term studies, whatever ability pornography has to enhance aggression declines due to the declining ability of the material to arouse the subject. The relationship between arousal and aggression is influenced by (i) the prior provocation of the subjects, (ii) the nature of the stimulus films, and (iii) the gender of the targets and subjects. Angered subjects are more liable to aggress than nonangered subjects, and highly arousing material is more likely to transfer energy into retaliation than less arousing material. Also, the experiments suggest that males are normally less likely to aggress against females than against other males. On the whole, the effects of nonviolent pornography on aggression are comparatively benign.

2. The picture that results from criminological studies is less clear. During the 1960s and 1970s, when sexual fiction became fairly explicit and widely available, the rate

of rape and sexual assaults increased in a number of European and common law countries. However, other crime rates also climbed dramatically. Thus, the link between increasing pornography and rising sexual victimization may be spurious, or may reflect common "macho" attitudes that lead to both sexual aggressiveness and a preference for explicit pornography. The issue is further burdened by the fact that it is impossible to determine whether the important characteristic in pornography is sexual explicitness or violence, since criminologists have rarely paid attention to such dimensions.

3. In clinical studies of rapists, evidence suggests that as teenagers these offenders had less exposure to nonviolent pornography than nonoffenders.

In the area of attitudes, Leighton found the evidence to be quite mixed. Short-term exposure led to both positive and negative effects in attitudes towards the subjects' intimate partners. Subjects in one study rated their partners as more attractive, while in another study they rated them as less so. Studies of longer duration did result in findings of more serious negative effects, although there was alarming disagreement over the findings. Exposure of subjects to an hour of "stag films" per week for six weeks led them to exaggerate the prevalence of sexual perversions, to become more tolerant of pornography, less supportive of women, and calloused in their attitudes towards victims of rape. The experimenters also discovered a shift in preferences for more bizarre forms of sex, and a devaluation of family values. However, other researchers found that exposure of subjects to five unedited sexually explicit feature length films over one or two weeks did not have these effects, whether the subjects were male or female.

In sum, there seems to be little ground for believing that nonviolent explicit pornography incites violent conduct, although its impact on attitudes seems plausible. However, it would be erroneous to conclude that there is consensus among social scientists on either of these issues.

Consensus appears to be more readily found in the area of violent pornography, in respect of which Leighton discovered the following:

1. There is substantial agreement that violent pornography is a potent precipitator of laboratory studies of aggression, although violence as opposed to sexual content seems to be the crucial dimension. The relationship appears to be mediated by prior provocation, and whether the victim of the violence in the film appeared to condone or repudiate her attacker's conduct. Also, patterns of sexual arousal to explicit depictions of rape appear to be fairly widespread among normal males, and do not appear unique to incarcerated rapists, suggesting that such films cultivate existing antisocial tendencies.

2. One clinical study of convicted homosexual child molesters and rapists did discover that offenders frequently employed child pornography and violent pornography to arouse themselves before an attack, although such material did not inculcate the original deviant tendencies.

3. In the area of attitudes, violent pornography appears to promote the acceptance of rape myths, calloused attitudes to women, belief in adversarial sexual relations, and a diminished sympathy for victims of sexual assault.

1.4 Up-date of the Research Since the Leighton Report

A General Overview

Since the completion of the Leighton report, there have been many new publications, as well as several important shifts in the field, that can be summarized briefly. Specifically, the periodical literature uncovered approximately 40 relevant contributions (see Appendix). These include new studies of the pornography-rape link, studies of attitudinal effects of pornography, and clinical studies of the role of pornography in the cause of sexual aggression. Also, psychologists have speculated on complex models of rape and the role of cultural supports, such as misogyny among those predisposed to sexual violence; however, this subject is largely tangential to the main concern here.

In addition to these new studies, a growing evaluative literature has explored some of the methodological limitations of the earlier research.[135] As well, its use by the Meese Commission in the United States was questioned,[136] including reservations by some of the chief authors about what they have characterized as the misuse of their evidence.[137] These commentaries reiterate many of the reservations and limitations noted by Barry Leighton in his review, and are omitted from this overview.

There are several new developments in the field: (1) an abandonment of the aggression-incitation experiments, (2) a growing rift between the experts (particularly between Donnerstein and students Linz, Penrod and Krafka, and Zillmann and Bryant and their student Weaver) over failures to replicate important experiments,[138] and (3) the lack of convergence between correlational studies and experimental studies on the negative impacts of pornography on behaviour.

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[135] Christensen (1986), (1987), (1990); Fisher and Barak (1990); Freedman (1988); Linz and Donnerstein (1988); Mould (1988a,b).

[136] Lab (1987).

[137] Linz, Penrod & Donnerstein (1987), in contrast to Zillmann (1985) and Page (1989).

A brief comment might clarify these developments: (1) The abandonment of the aggression experiments by the Donnerstein school appears to be based with problems in interpreting the results (i.e., aggression comes more from the provocation of subjects than the films they watch), and a growing sense that the effects on attitudes can furnish more reliable evidence of harm.[139] (2) The rift between the major psychological schools appears to be over the kinds of pornography that each side believes contribute negatively to attitudes. Zillmann's school has confined attention exclusively to explicit pornography, focusing on the sexual element, and Donnerstein's school to so-called "slasher" films, emphasizing the aggressive element. While they are inclined to believe that both stimuli have negative consequences, the doctoral works of Linz[140] and Krafka[141] under Donnerstein's supervision fail to confirm the attitudinal effects that Zillmann and Bryant,[142] and Weaver[143] report in studies of exposure to sexually explicit films. When the Donnerstein school reports such effects, they (1) are never as robust and unambiguous as those discovered by Zillmann, Bryant and Weaver, and (2) appear unrelated to sexual explicitness, and more related to sexual violence.

Finally, the inconsistency between the findings in recent correlational studies of rape and pornography circulation and the earlier models of incitation to violence in the laboratories is not as troublesome as it initially seems. If the psychologists are correct in the following suppositions that;

(i) whatever harm arises from pornography is probably attitudinal in the main;
(ii) harm rarely appears to result in aggression by men toward only women; and,
(iii) harm appears only in persons already predisposed to view women negatively;

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[138] Also reported in Canada by Fisher and Barak (1990).

[139] Donnerstein et al. (1987).

[140] Linz (1985).

[141] Krafka (1985).

[142] Donnerstein (1986a,b); and Zillmann and Bryant (1988).

[143] Weaver (1987).

it is hardly surprising, then, that there is little evidence in recent studies to suggest a link between pornography consumption by men and a subsequent assault on women.

The New Correlational Studies

Leighton cited Court as authority for the proposition that increased circulation of pornography that was associated with increased rates of sexual aggression/rape between the mid-1960s and mid-1970s. A 1990 update of the trends in West Germany, Denmark, and Sweden suggests (1) that the rate of rape has been remarkably low (10/100,000 population) as well as constant between 1964 and 1984, and (2) that it has lagged sharply behind increases in other crimes of violence. In the United States, where there has been a sharp (fourfold) rise in the rate of rape in the same period, the increase is identical to the change in the figure for assaults.[144] Most observers would agree that these trends are inconsistent with the proposition that the dramatic change in the circulation of pornography, explicit and otherwise, was associated with increasing sexual victimization, particularly in Western Europe. This was also the conclusion of the Williams Committee on Obscenity and Film Censorship.[145]

In contrast to these longitudinal patterns, three studies of a cross-sectional nature examined the correlation between per capita circulation of pornographic magazines and the rate of rape in the United States for 1979 and 1980. All 50 states found that states with the highest consumption rates (i.e., Alaska, Nevada) also have the highest rates of rape. Baron and Straus,[146] cited in Leighton, reported that this proved the link between consumption and the incitation to violence. Leighton also mentioned they reversed their position in 1986 after controlling for variations in "macho" attitudes that might favour both tendencies. Scott,[147] analyzing the same data, concluded that the relationship was spurious since the correlation was strongest for *Playboy*, and nonsignificant for harder-core magazines, contrary to expectations. If men's magazines incite readers to violence, Scott questioned how the magazine that is the least explicit could produce the worst effects. Also, Scott and Cuvier[148] suggested in an analysis of violence in *Playboy* magazine that it never amounted to more than one per cent of the total pages, and that the trend towards violent/cruel cartoons and photographs peaked in the mid-1970s and declined thereafter. These findings suggest the lack of any direct relationship between pornography and rape.

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[144] Kutchinsky (1990).

[145] United Kingdom (1979).

[146] Baron and Straus (1984).

[147] Scott (1988).

[148] Scott and Cuvier (1987).

New Clinical Studies and Attempted Theoretical Integration

Leighton reviewed the report by William Marshall of Queen's University that was circulating in manuscript form prior to its publication in 1988.[149] Marshall's study was based on a sample of 74 sex offenders in treatment in a Kingston clinic, most of whom were apprehended rapists or child molesters. During in-take interviews, the clinic staff reviewed client recollections about adolescent use of pornography. Compared with incest offenders and control subjects, these men reported greater exposure to violent pornography (in the case of rapists) or child pornography (in the case of child molesters). They also frequently reported the use of such stimuli prior to attacking victims in order to evoke coercive sexual fantasies. Marshall also reported that rapists and child offenders showed abnormal patterns of self arousal (masturbation), suggesting that pornography was functional in elaborating existing deviant tendencies that formed earlier in adolescence.

In a parallel study conducted in a sex clinic in New York City, Becker and Stein[150] studied 160 adolescent males who were associated with a total of 267 sexual assaults. Becker and Stein concluded that of the subjects questioned, a majority of 70 per cent indicated pornography "played no role". However, use of alcohol and prior sexual and physical abuse of the offenders were much more strongly correlated with their own sexual offences. This conclusion was similar to an earlier finding by Abel, Becker and Mittleman[151] that questioned the role of pornography as a cause of most sex crimes.

It is difficult to reconcile these two conclusions. Becker and Stein's clients were much younger, while Marshall's offenders were older, and may have been more serious offenders. If both studies are correct, the use of pornography may then become more functional with age (i.e., more important to the offender in inciting himself to aggression, and may further provide an "external" explanation or excuse to the offender for his sexual preferences). But this is quite different from concluding that normal males are perverted by what they read.

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[149] Marshall (1988).

[150] Becker and Stein (1990).

[151] Abel, Becker and Mittleman (1985).

In this context, it is worth reviewing briefly the development of some related theoretical models. Neil Malamuth, one of the most productive investigators of pornography effects, has turned his attention in recent years to complex models of rape.[152]

Malamuth, Check and Briere[153] tested for variations among college students in physical arousal to portrayals of coercive sexual entertainment. Men who showed positive inclinations to arousal also tested positive with respect to a number of misogynist attitudes, including self-reported likelihood to engage in coercive sexuality with women. Malamuth[154] extended the study to investigate the correlation between "naturalistic self-reported sexual aggression" (measured by questions ranging from forced kissing to date rape) and attitudes supportive of aggression, female domination, and psychoticism. Malamuth found that the interaction between the attitudinal items gave a much more satisfactory prediction of aggression than any single item, or the simple addition of items.

In his most recent work, Malamuth[155] has developed an "attraction to sexual aggression" scale that consists of sexist attitude scales combined with a questionnaire testing for an attraction to deviant sexual practices (i.e., bondage, sado-masochism), and self-reported inclinations to engage in coercive sexuality. The total scale seeks to differentiate subjects (i.e., make predictions) on their likelihood to act in a sexually aggressive manner, although Malamuth cautions about its misuse. It is relevant inasmuch as pornography might be thought to contribute to personality inclinations that already seem to be different in terms of arousal to violence, and sexist attitudes toward women.

It should be noted, however, that neither of these studies directly addresses the contribution of pornography. Even so, the clinical studies cited earlier appear to suggest similar convergent thinking: if pornography has a role to play in sexual aggression, it appears to be notable only when virtually all the potential is already present. However, to the extent that this potential comes in part from society, pornography may contribute in a background or atmospheric way, even if its tie to particular instances of aggression is remote in each particular instance. The link is therefore, real but remote.

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[152] Malamuth (1986, 1989a, 1989b); Malamuth, Check and Briere (1986).

[153] Malamuth, Check and Briere (1986).

[154] Malamuth (1986).

[155] Malamuth (1989a,b).

1.5 Diverging Approaches to the Study of Pornography

The Focus on Sexual Content

The first group of studies originates from the laboratory of Dolf Zillmann and Jennings Bryant.[156] Employing the same methodology as in their earlier work,[157] subjects were exposed to one hour per week of explicit sex films without violence, bondage, discipline, bestiality or homosexuality. In tests conducted over subsequent weeks, Zillmann and Bryant[158] discovered that the subjects had developed tastes for more unusual perverse entertainment choices, particularly the male subjects. Zillmann and Bryant[159] reported devaluations of family values (i.e., tolerance of infidelity, enhanced belief in widespread promiscuity, devaluation of the institution of marriage and a reduced desire for children). Finally, in 1988 they reported decreases in satisfaction with the subjects' sexual partners, their physical appearance and sexual performance after exposure to pornography.

In a similar vein, James Weaver[160] tested the effects of (i) sexually explicit, (ii) explicitly violent and (iii) sexually violent portrayals of men and women on (a) attitudes to women and (b) attitudes to a sex offender in a mock jury study. Weaver's most striking finding was that exposure to sexually explicit materials can strongly influence perceptions of female promiscuity and "the trivialization of rape" as a criminal offence. These effects were most pronounced for sexually explicit materials devoid of violent content. Sexually violent materials produced a weaker effect.[161] Weaver's findings lead to the major inconsistency in recent research.

The Focus on Violence

Linz, Donnerstein and Penrod[162] came to different conclusions. They exposed subjects to (i) violent "slasher" films (e.g., "Friday The 13th," or "The Toolbox Murder" variety), (ii) X-rated but nonviolent pornography, (iii) R-rated films with moderate sexual content (e.g., teen sex films), and (iv) maintained a control group to whom no films were shown. Subsequently, the subjects were asked to participate in a mock jury study in a rape case. Measures were made of sympathy for the victim, affective arousal, and punitiveness toward the convicted accused. The measures were made after a short-term exposure condition (two films) versus a long-term exposure (five films). The major findings demonstrated a decline in sympathy, effective arousal and punitive attitude to the offender, after the long exposure condition, but only for the slasher film treatment groups. The other treatments revealed no such desensitizing effect.

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[156] Zillmann Bryant (1986 a,b; 1988).

[157] Zillmann and Bryant (1982, 1984).

[158] Zillmann and Bryant (1986).

[159] Zillmann and Bryant (1986 ms).

[160] Weaver (1987).

[161] Weaver (1987, vi-vii).

[162] Linz, Donnerstein and Penrod (1988).

In a long discussion piece, Linz[163] attempted to sort out the obvious inconsistencies between the two schools. Possible artifacts leading to inconsistencies might include subject awareness biases, population differences in the samples, lengths of the studies, the degree of realism in the types of films used, the presence of positive aspects of sexuality in the types of films, etc. Linz concludes the most prudent course is to wait until additional evidence is collected before either indicting or vindicating the role of pornography in the formation of negative attitudes about rape and rape victims.[164] Ironically, Linz's conclusions, regarding his own subject matter, would seem to justify action against films that are not sexually explicit, thus allowing nonviolent "skin flicks", but banishing the exclusively violent "Friday The 13th"! William Fisher, a psychologist at the University of Western Ontario, notes that these conclusions leave more questions than answers.[165]

1.6 Recent Developments

Intons-Peterson and Roskos-Ewoldsen[166] reported that debriefing audiences about rape myths is successful in curbing the adoption of rape myths communicated by violent pornography. In short, education works. Padgett et al.[167] reported several findings from a survey/experiment at Marshall University, that correlated measures of self-reported consumption of pornography (i.e., how much was read/seen regularly) with the results of a scale measuring sexist attitudes. Variations according to the types of pornography exposure were not correlated with sexist attitudes, and in fact the question of what kind of material the subjects were exposed to was not addressed. In a second study the authors randomly assigned subjects either to sexually explicit films (such as "The Devil in Miss Jones") or to neutral films, and then tested for variations in attitudes towards women. Again, they found no differences between the test groups – contrary to earlier work by Malamuth.

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[163] Linz (1989).

[164] Linz (1989, 80).

[165] Fisher (1990).

[166] Intons-Peterson and Roskos-Ewoldsen (1989).

[167] Padgett et al. (1989).

It is alarming that researchers endeavouring to replicate allegedly well-known effects have failed to do so. This does not mean the effects are not real, but only that they may not be very strong or robust, or that they are unpredictable, or that they may only occur in populations predisposed to exhibiting negative effects.

However, there is a silver lining to these negative results. They suggest that college students are probably not being harmed as a result of participation in these studies. To the extent that they are, from an ethical point of view, it is difficult to concede that psychologists would create conditions that would not be easily remedied by debriefing, by education. This raises two issues:

(i) whether concerns about pornography should focus on its effects on normal individuals as opposed to those inclined temperamentally to act aggressively toward women and children, and
(ii) whether the most important institutions for remedying these concerns are the courts or the classrooms.

A prudent middle course might leave control of the most offensive pornography to the law (i.e., sexual violence, extremely degrading acts, bestiality and the exploitation of children). The balance – explicit sex – should be left to the moral and educational institutions.

APPENDIX A

(REPORTS 1986-1990)

OVERVIEW SOCIAL SCIENTIFIC REPORTS ON PORNOGRAPHY

Basic Research	**Critical Debate and Exchange**	**Summaries of Work**	**Doctoral Theses**	**Government Related**
Malamuth et al. 1986	Christensen 1986	Check & Malamuth 1986	Linz 1985	Zillmann 1985
Malamuth 1986	Brannigan & Goldenberg 1987	Linz et al. 1986	Krafka 1985	Mulvey & Haugaard 1986
Zillmann & Bryant 1986A	Christensen 1987	Donnerstein et al. 1987	Weaver 1987	Linz et al. 1987
Zillmann & Bryant 1986B	Lab 1987	Einsiedel 1988		Australia 1988
Baron & Straus 1986	Linz & Donnerstein 1988	Freedman 1988		
Scott & Cuvier 1987	Mould 1988A	Linz 1989		
Scott 1988	Mould 1988B	Fisher & Barak 1990		
Marshall 1988	O'Grady 1988			
Linz et. al. 1988	Page 1989			
Zillmann & Bryant 1988	Christensen 1990			

Basic Research	Critical Debate and Exchange	Summaries of Work	Doctoral Theses	Government Related
Malamuth 1989A				
Malamuth 1989B				
Padgett *et al.* 1989				
Intons-Peterson & Roskos-Ewoldsen 1989				
Becker & Stein 1990				
Kutchinsky 1990				

APPENDIX B

REFERENCES TO RECENT EMPIRICAL PORNOGRAPHY RESEARCH IN SOCIAL SCIENCE CITED IN THIS REVIEW (EXCLUSIVE OF CITATIONS IN LEIGHTON, 1988)

ABEL, G.G., J. BECKER & M.S. MITTLEMAN. 1985.
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"Does Pornography Play a Role in the Aetiology of Sexual Deviance in Adolescent Males?" *International Journal of Law and Psychiatry*, 13(3): forthcoming.

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"Cultural and Ideological Bias in Pornography Research". *Philosophy of the Social Sciences*, 20: forthcoming.

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"The British, Canadian and U.S. Pornography Commissions and their Use of Social Science Research". *Journal of Communication*, 30(2): 108-121.

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"Mitigating the Effects of Violent Pornography". In Susan Gubar and Joan Hoff (Eds.), *For Adult Users Only: The Dilemma of Violent Pornography*. Bloomington: Indiana University Press, 218-239.

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Sexually Explicit, Sexually Violent and Violent Media: Effects of Multiple Naturalistic Exposures and De-briefing on Female Viewers. Unpublished Doctoral Dissertation, University of Wisconsin at Madison, Department of Psychology.

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